

Florida WILDLIFE

SEPTEMBER, 1957

The Florida Magazine for all Sportsmen

25 CENTS

WARM-UP FOR
WATER FOWL

THE NIGHT
FLYERS

BOWFINS ARE
SCRAPPERS



FLORIDA WILDLIFE'S

Fishing Citation

"for that BIG ONE that DIDN'T get away"

ELIGIBILITY REQUIREMENTS

All fish must be taken from the fresh waters of the state of Florida, as defined by the Game and Fresh Water Fish Commission. Fish must be caught on conventional fly, spinning, or bait-casting tackle, with artificial or live bait, in the presence of at least one witness.

The catch must be weighed and recorded at a fishing camp or tackle store within the state by the owner, manager, or an authorized agent of the respective establishment.

Application for a Florida Wildlife Fishing Citation must be made within 10 days of the date fish was caught. Application must be made on the prescribed form as shown on this page. (Requests for additional forms should be addressed to: Florida Wildlife, Game & Fresh Water Fish Commission, Tallahassee, Florida.)

Citation, showing recorded data of the catch, will be mailed to the applicant upon receipt of application form that has been properly filled out and signed.

The receipt of any and all photographs pertaining to the registered catch, including the applicant and the fish, will be appreciated by the editor for use in Florida Wildlife Magazine.

Florida Wildlife Fishing Citations are available without charge, to any and all subscribers to Florida Wildlife Magazine, and their immediate families, who catch any of the following fresh-water game fish of the prescribed size requirements:

SPECIES

LARGEMOUTH BASS

_____ 8 pounds or larger

CHAIN PICKEREL

_____ 4 pounds or larger

BLUEGILL (BREAM)

_____ 1 1/2 pounds or larger

SHELLCRACKER

_____ 2 pounds or larger

BLACK CRAPPIE

_____ 2 pounds or larger

RED BREAST

_____ 1 pound or larger



CUT OUT AND SAVE THIS APPLICATION BLANK

APPLICATION FOR FLORIDA WILDLIFE FISHING CITATION

The Editor, FLORIDA WILDLIFE

Date _____

Game & Fresh Water Fish Commission, Tallahassee, Fla.

Please send me the Florida Wildlife Fishing Citation with the inscribed data listed below:

Name _____ Address _____

Species of Fish _____ Weight _____ Length _____

Type of Tackle, Bait Used _____

Where Caught _____ Date _____

Catch Witnessed by _____

Registered, Weighed by _____ at _____

(Signature of Applicant)

★

Published monthly by the
FLORIDA GAME AND FRESH WATER FISH COMMISSION
Tallahassee, Florida

★

**Dedicated to the
Conservation, Restoration, Protection of Our Game and Fish**

★

BILL HANSEN, Editor

MORRIE NAGGIAR, Associate Editor

C. L. SATTERFIELD, Circulation

CHUCK SCHILLING, Fishing Editor

EDMUND McLaurin, Gun Editor

In This Issue

Warm-Up For Waterfowl.....	Edmund McLaurin	10
Bowfins Are Scrappers.....	Max Hunn	14
Open Door For Outdoorsmen.....	Matt Whisenhunt	16
Florida's Blue Battler.....	Julius Sturm	20
When The Auks Came To Florida.....	Wilfred T. Neill	22
The Night Flyers.....	Mary Lou Norwood	26
Footfalls In The Forest.....	Archibald Rutledge	30
Around The State.....		34

Departments

Strikes & Backlashes	4	Sportsman's Bookshelf	35
Junior Conservationist	6	Muzzle Flashes	36
Fishing	8	Meet Your Commission	39
Florida Birdlife	33	Test & Tells	40

Florida Wildlife is published monthly by the Florida Game and Fresh Water Fish Commission, Tallahassee, Fla. Single copy, 25c; subscription rate, \$2.00 per year. Changes of address should be reported promptly. Unsolicited pictures and editorial material will be handled with care, but Florida Wildlife cannot assume any responsibility for loss or damage of same. Permission to reprint any material in this publication will be granted to responsible parties upon application to the editor. Entered as Second Class Matter Nov. 8, 1947, at the Post Office at Tallahassee, Fla., under the Act of Aug. 24, 1912.

Copyright 1957, by

Florida Game and Fresh Water Fish Commission

COMMISSIONERS

FORACE HOLLAND, Chairman
Panama City

TALMADGE HART
Wauchula

GORDON GRANGER
Lake City

DR. J. W. COSPER
Homestead

DON SOUTHWELL
Ormond Beach

★

ADMINISTRATIVE STAFF

A. D. ALDRICH, Director
O. EARLE FRYE, Assistant Director

JOEL MCKINNON
Administrative Assistant

E. T. HEINEN
Chief, Fish Management Division

E. B. CHAMBERLAIN, JR.
Chief, Game Management Division

ROBERT A. DAHNE
Chief, Information-Education

WALLACE HUGHES
Chief, Audio-Visual Education

★

REGIONAL OFFICERS

Northwest Region

JAMES BICKERSTAFF, Regional Manager
207 E. 15th St., Sunset 5-5352
Panama City, Florida

Northeast Region

CHARLES CLYMORE, Regional Manager
Box 908, Phone 1725
Lake City, Florida

Central Region

D. C. LAND, Regional Manager
205 W. Adams, Marion 9-2802
Ocala, Florida

Southern Region

C. R. REVELS, Regional Manager
Lodwick Airport, Mutual 6-5171
P. O. Box 1392
Lakeland, Florida

Everglades Region

FRED W. STANBERRY, Regional Manager
P. O. Box 877, Rodeo 2-2851
Okeechobee, Florida



THOSE BUSY BEES

Dear Editor:

Edmund McLaurin has done an outstanding job in your July issue of *Florida Wildlife* on the value of the beekeeping industry in Florida.

Few people realize how dependent one segment of agriculture is on another and what would happen to our important crops if there were no insects like honeybees to pollinate them. Honeybees cooperate with our natural projects to increase our natural resources as well as increasing their own products—honey and wax—by several million pounds each year.

No other insect is more beneficial directly or indirectly to agriculture than the honeybee.

Beekeepers are particularly interested in the program of the Florida Game and Fresh Water Commission as honeybees gather much nectar from most plants that furnish food for game and they wish to help protect such areas.

John D. Haynie

Extension Apiculturist
University of Florida

POISON IVY

Dear Editor:

In a recent number of *Florida Wildlife* (July 1957) Mr. Lee tells about his cousin who developed a serious case of ivy poisoning of the mouth as the result of picking his teeth with a stem of poison ivy vine. He goes on to say that "Cousin" escaped a serious intestinal inflammation due to the fact that he did not swallow saliva; "spitting saved 'em."

I quote a distinguished dermatologist to the effect that mucous membranes are immune to the poison of *Rhus toxicodendron*. In fact I am told that by eating a salad made from

the leaves of the plant, immunity to the common skin lesions is created and with no effect on the mucous membranes of the mouth or intestinal tract. I would not use or recommend this as a means of prophylaxis but if Mr. Lee is in error about his cousin's trouble, it would be well in the interest of science to correct this in a future issue of *Florida Wildlife*.

L. H. R.

Ft. Lauderdale, Fla.

OLD TIMER

Dear Sir:

Enclosed you will find my check for \$2.00 for a year's subscription to *Wildlife*.

I have been in Florida since 1895 and have seen the game and fish dwindle greatly in that time. My

THIS MONTH'S COVER

To most anglers, no matter where they live, Florida means fishing. From tiny flatwoods pond to the vast sparkling inland sea that is Lake Okeechobee, the Sunshine State's waters are fishing waters.

Cane pole or the latest word in spinning, fly rodding or bait casting tackle, here you will find fish aplenty to try your luck and skill.

A great many Florida sportsmen would consider a trip incomplete without a fish fry on the shore to follow up a successful session with rod and reel.

As the lard melts down in the skillet, the two anglers on this month's cover enthusiastically compare notes on the morning's results as they look forward to the coming fish fry.

grandson will not have the hunting and fishing that I have enjoyed but thanks to Commission's efforts, thank goodness there will be some.

I have hunted and fished most of the state from Key West to West Florida, both salt water and fresh. Now am retired and enjoy your magazine from my easy chair, keeping up with what's doing in Florida.

T. E. Satchwell

Jacksonville, Florida

BASS FISHING

Dear Sirs:

Enclosed please find my check to cover the next 2 years subscription to your fine publication. I lived in Winter Park, Fla. about 4 years, got acquainted with your magazine at the Orange Co. fair wildlife exhibit.

Am an ardent fisherman, Bass especially, and have taken some nice ones. Had one 11¼ lbs from Lake Mizell in Winter Park; also one 8½ lbs from Lake Virginia in Winter Park. I always released the 2 or 3 pounders. Have taken hundreds of 4 and 5 lb bass from above lakes and also Lakes Maitland and Osceola in Winter Park.

Have fished Lemon Bluff and Osceola Camp on St. Johns and a weekly Red Snapper fisherman on the Miss Charleston out of Canaveral Harbor for several years.

I can hardly wait to get back to the good old Sunshine State. In the meantime, I can read your good mag and dream.

Raymond B. Tidd
Canton, Ohio

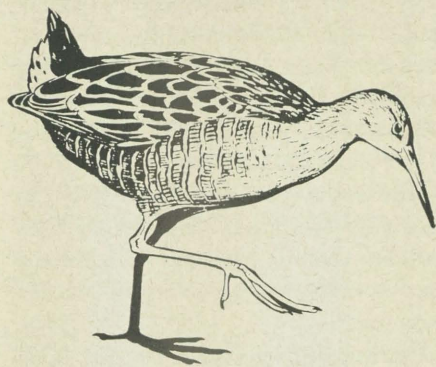
NATURAL HISTORY

Dear Sir:

I was especially pleased this month when my issue of *Florida Wildlife* came. Since I am especially interested in studying the animal and bird life in Florida, the July issue was the best one yet in my opinion. I have really enjoyed the magazine immensely during the past year.

Loren W. Gould
Miles, Washington

1957
MARSH HEN
SEASON



The regular hunting season for gallinules and rails (marsh hens) will open on September 20 and will run for 66 consecutive days, ending at sunset on November 24.

Shooting hours will be from one-half hour before sunrise to sunset. The daily bag limit on gallinules and rails (except sora rails) has been increased to 15 per day with a total possession limit of 30. The daily bag limit and the possession limit on soras remains the same as last season—25 per day and 25 in possession.

LONGER DOVE-RAIL SEASON

BAG LIMITS INCREASED

FLORIDA'S MIGRATORY bird hunters have been granted an additional five days of dove hunting, and an increase in the bag limits for dove and marsh hens.

The 1957-58 regulations, as established by the U. S. Fish and Wildlife Service, were approved by the Florida Game and Fresh Water Fish Commission at its annual meeting at Tallahassee, July 13.

The dove hunting season will be 60 half-days, as compared to the previous 55 half-days. Hunting will be allowed statewide from 12:00 noon until sunset during two periods. The early dove hunt period will consist of 28 half-days from October 5 through November 1, except Alligator Point, Franklin County, which will be closed. The second period will consist of 32 half-days from November 28 through December 29 statewide.

Daily bag limit for dove was increased from eight to 10, with a total possession limit of 10.

Season for rails and gallinules (marsh hens) has been set at 66 con-

secutive days from September 20 through November 24. Shooting hours are one-half hour before sunrise to sunset. Daily bag limits for marsh hens, except sora rail, was increased from 10 to 15, with a total possession limit of 30. Sora rails remain at 25 for both daily bag and total possession limit.

Woodcock season will run 40 consecutive days from December 12 through January 20. Bag limits remain at four per day, with eight in total possession.

Seasons for duck, geese, coot and snipe have not as yet been announced by the U. S. Fish and Wildlife Service. The Florida Commission, however, tentatively set the opening day for hunting ducks, geese and coots as November 23, with the latest closing date allowed by Federal regulations to be announced later.

The Commission also stated that the snipe hunting season would be the maximum number of days ending on the latest Sunday allowed by Federal regulations. ●

Osceola—Apalachicola Bear Hunts

SEPTEMBER 30 THRU OCTOBER 27

Open Season: September 30 through October 27. Two three day hunts per week for a total of eight hunts during the special season.

Legal game: One bear and one panther; no limit on fox, skunk, opossum, bobcat, civet cat (spotted skunk), rabbit. Killing cub bear prohibited.

Permit: A special party permit is required in addition to license requirements to participate in the bear hunts. The fee for this permit is \$50.00 per hunt. Permits for Osceola Hunt may be secured from Regional Manager, P. O. Box 908, Lake City; for Apalachicola Hunt from Regional Manager, P. O. Box 576, Panama City. Hunt parties must be limited to 17 persons except upon approval of hunt supervisor.

Special Hunt Rules: Shooting hours will be one-half hour before sunrise to sunset. Hunting days in one

week may be changed by approval of the Hunt Supervisor. No Sunday hunting.

A qualified Hunt Supervisor will accompany each hunting party. Only one shoulder weapon (hi-powered rifle or shotgun not smaller than 16 gauge) plus one side arm will be permitted for each hunter. Rifle ammunition must be hollow point soft nose type. Hunting with full automatic weapons is prohibited.

Hunting parties may camp on the National Forest at locations approved by the Forest Service Ranger in charge of the Region. Each hunt party will report kill or kills to the Hunt Supervisor before leaving area.

Application for permit accompanied by check for \$50.00 must be filed with Regional Manager by September 15. Drawings will be held to determine period and party to be permitted. ●

JUNIOR CONSERVATIONIST

By DENVER STE. CLAIRE

OUR NEW Camp Director is Mr. Lloyd Morgan, Sebring. Mr. Morgan has a Master of Science Degree in Education, and is an accomplished instructor.

Mr. Morgan's camp counseling staff includes: Phil Alexander, Waterfront Director, University of Miami; Roger Pierce, Chief Counselor, University of Florida (Roger is in charge of boys between the ages of 8 and 12); Jack Champion, Chief Counselor, Florida State University (Jack is in charge of boys between the ages of 13 and 18); Frank Arrendale, Counselor, University of Florida; Don Carson, Counselor, University of Florida; David Parsons, Counselor, Tallahassee; Jim Hall, Counselor, University of Florida.

Our staff includes Virgil Cowart, First Cook, Ft. McCoy; Ernest Harris, Second Cook, Ocala; Jimmy Miller, Kitchen Helper, Ocala; Jerry Kemp, Kitchen Helper, Ocala; and Mr. and Mrs. Harry S. Kenan, Custodians.

During the week of June 30—July 6, some of our campers worked very hard earning degrees of the Florida Wildlife Conservationist Order. These degrees may only be earned at camp, and include seven, the highest being the Degree of the Panther.

The first boy in the State of Florida to receive the Degree of the Gopher (this is the first degree) was Peter Arnett, Age 12, of 1402 East Knowlwood, Tampa. Congratulations, Pete—!

Others who received their degrees

during the first week were: Richie C. Collins, Age 12, of 8088 Wakefield Avenue, Jacksonville; Willard Nowlin, Age 14, 1023 Mayer Drive, Jacksonville; Buddy Newman, Age 14, 6816 Camlot, Jacksonville; Steve Busey, Age 12, 190 Arlington Road, Jacksonville; Jimmy Stokes, Age 12, 1606 Griflet, Jacksonville; Russell Harvey, Age 13, Route 2, Box 171, Fernandina Beach, Florida. All of these boys have earned the Degree of the Gopher. Next year they will be able to earn the second degree which is the Degree of the Possum.

During our second week for boys, there were several more who completed the Degree of the Gopher. They were: Donald Pridgin, 1269 Ocean Boulevard, Atlantic Beach; Brad and Graig Campbell, Age 10 and 12, 1446 River Bluff, Jacksonville; Frank Busbee, Age 10, 257 Hollywood Road, Jacksonville; Jack Jacques, Age 11, 1006 Naples Avenue, Orlando; Charles Aue, Age 10, 3924 Mariana Street, Jacksonville; and Jimmy Devanie, Age 11, 4553 Watroak Lane, Jacksonville.

Air Rifles—Something new has been added this year at Camp. For the first time we are using the Crossman CO² gas-powered target rifle in our range. Our rifle instructor and Chief Counselor, Roger Pierce, is using the two Crossman series #160 and #180 for instruction and shooting. Emphasis is placed on safety and use.

Best Camper of the Week—June 30-July 6, Class A and B. Jimmy Goldman of Orlando received the title of Best Camper of the Week and was awarded a Ply-Flex Fishing Rod.

July 7-13, Class A (ages 8-11). Jack Jacques of Orlando received this title and was awarded a Lohman Turkey Call. Class B (ages 12-16). Jackson Royal of Jacksonville received this title and was also awarded a Lohman Turkey Call.

Conservation and Game Room—Our mess hall is now partitioned for a Conservation and Game Room. Our blackboards and easels with their charts and displays plus our



Photo by Ralph Voss

Winners of this year's Bartow Fishathon. Site of the popular fishing contest was the Game and Fresh Water Fish Commission renovated Hack Lake in Bartow.

exhibit of skins, deer skulls and jaw bones, specimens of snakes, and other materials make the room most interesting and inspiring.

National Award—For you Mothers and Fathers, who read this column, you may appreciate our feelings in announcing that the Florida Game and Fresh Water Fish Commission was the recipient of a National Award presented by the National Association for Conservation Information for "Excellence in Special Conservation Education Project—The Youth Conservation Education Program." This award was presented at the convention held at the Buena Vista Hotel, Biloxi, Mississippi. You can understand how proud all of us are.

Another honor has been bestowed upon us by the National Wildlife Federation. Mr. William L. Reavley, who has just completed a booklet entitled "Conservation Clubs for Junior", has selected Florida's program for juniors together with eight other states. If you would like to have a copy of this booklet, write to National Wildlife Federation, 232 Carroll Street, N. W., Washington 12, D.C.

* * * *

Florida Tackle and Gun Club—At a recent meeting of the Florida Tackle and Gun Club, I was pleasantly surprised by having a \$200 check presented to our Youth Conservation Camp. Mr. James M. Harlow, President of the club, did the honors, while Paul Mains gave a quick sketch about the Camp and its program. Our many thanks to the members and officers of the club for their sincere interest in the Youth Education Program.

* * * *

Bartow—The Bartow Junior Conservation Club recently participated in the Fishathon held July 3 at Lake Hack. The club co-operated with the City Recreation Department, Bartow school area summer program, the P.T.A., and the State Game and Fresh Water Fish Commission. Hats off to this capable club. They get right in with the adult organizations to help promote their community.

Junior Conservation Clubs sending campers to Lake Eaton this summer so far have been: Clearwater, St. Petersburg, Panama City, New Smyrna Beach, Labelle, Pahokee, Ft. Lauderdale, Miami, Hialeah, Hollywood, Ocala, Leesburg, Eustis, Hallandale, Winter Haven, Lakeland, Stuart, Titusville, and Yankeetown.

St. Johns County Junior Conservation Club—This new club just re-

cently had a meeting for the purpose of inviting young people to join the club. I'm quite certain it must have been a success for after the meeting a picnic was held. Good luck to all of you.

* * * *

That's all for now. Hope to visit with you soon at one of your club meetings. Don't forget to keep on working on the conservation projects. ●



Photo by Jim Reed

Junior Conservationists receive gun handling instructions at the Lake Eaton Camp. The CO₂ guns were provided through the courtesy of the Crossman Company. Front row, left to right: Counselor Frank Arrendale, Steve Massey, Mitchell Grey, Bobby Phillips, and Rodney Brock. Back row, left to right: Wade Wansley, Bill O'Steen, Harris Doueck, Boys Hart, and Counselor Roger Pierce.



Photo by Ed Timmons

John Collins (left) President of the Junior Conservation Club League, congratulates winners of awards for outstanding work in the Junior Conservation program. Those receiving recognition include: Lloyd Johnson, Outstanding Junior Conservationist of 1956; Carlie Calhoun, President Bay County Girls Junior Conservation Club; James DeBarry, Senior Counselor of Deane Mather Club; Gene Gallant, Outstanding Senior Counselor 1956.

FISHING[®]

By **CHUCK SCHILLING**



IT TAKES A SPECIAL KIND of intelligence to recognize the simple opportunities that add so much to our lives. The mind that conceived the safety pin certainly contributed more to mankind to date than the science that made the atom bomb possible.

It has been my privilege to know a man with such a mind. Lou Michaels lives in Dayton, Kentucky. He is a mechanical wizard and the inventor of simple gadgets that work. I'm forever saying, "Now why didn't I think of that?" He is, also, an enthusiastic angler.

Lou Michaels and his wife, Edna, like to pack up and tour the national parks and other vacation areas during the summer months. Both the Michaels are expert anglers, and their summer tours have taken them to most parts of the country. Lou likes to travel light, and he likes to wander around in the back country in out-of-the-way places. It early became obvious to him that he needed

some sort of overnight accommodations he could take along with him.

Lou tried small sports trailers without liking the results too much. The trailers had disadvantages beyond making it impossible for him to tow his boat. He tried all kinds of tents but, again, found handicaps that made all of them unsatisfactory. It was at this time, Michaels bought a station wagon and began applying his genius for simple things to the problem.

Station Wagon Conversion

It's now two years since Lou began tinkering with his Dodge station wagon. Thru trial and error, he has now evolved an arrangement that works perfectly. As you can see in the accompanying illustrations, the heart of this wagon conversion is a permanent bed that remains made-up ready to use at all times, yet permits the usual storage of duffle and supplies.

This bed is a sheet of ¾-inch ply-

wood mounted on ½-inch pipe legs, using pipe flanges as fasteners both in the plywood and in the wagon floor. The bedding is a light mattress and the usual sheets, blankets, and pillow arrangement. The plywood is mounted high enough from the floor to give easy clearance to cardboard cases usually associated with bottled beer.

Here, again, the choice is a good one. The beer boxes are a standard size, very light, yet very strong. They have tight fitting lids and are waxed so heavily inside and out as to be almost waterproof. They are readily available almost anywhere. All of Lou's camping gear—food, clothes, etc.—go in these beer boxes, making his equipment handy yet perfectly packed and safe.

Lou's Dodge wagon is a 4-door job, and on the driver's side, the rear door opens on under-the-bed storage space that holds tools and tackle box plus a spare outboard motor. The right rear door opens on a large, well insulated, metal icebox, positioned in such a way the icebox lid is flush with the bed platform that has been cut away to make room for it. Thus, the icebox is instantly available by rolling the corner of the bedding back. The icebox has a hose drain to the outside of the car.

Lou has installed metal louvers, rainproof and fully screened, that fit in the window openings of the two rear doors. These provide fresh air in any weather, and the air-conditioning and heating unit of the station wagon insures a cool or warm bedroom to start the night off right, just as the case may be. The wagon's two rear side windows and the back



Rear view of the wagon showing bed made up and ample room for storage boxes below.

window have been equipped with roller shades to insure bedroom privacy. A canvas lean-to arrangement, stretching from the roof gutter of the car on the icebox side, provides a shelter space large enough for folding chairs and table for cooking and eating arrangements.

Now this is my idea of a light camping outfit that is really practical. With a boat and motor hooked on behind a station wagon converted like this, I would have all I'd want in the way of accommodations for my wife and myself. This outfit provides safe, dry, comfortable sleeping arrangements anywhere you can park your car and does so with a minimum of effort. Still, it's not so complete that you feel you are barely removed from your own home. I'd say the combination of camping out and solid comfort was hit on just the right note in this deal.

At any rate, this arrangement impressed me, and I thought it might be of interest to other wandering anglers with a yen for a mixture of comfort and extreme portability.

Side Arm Mayhem

I have on many occasions said I can find no excuse for side arm casting when more than one person is in the immediate vicinity. If a person fishing alone wants to use a side arm cast, that's his business, although this method will never pro-

duce anything but mediocre results in accuracy or distance. When a side-wheeler goes into action in the company of other people, it's time to leave.

I'd never knowingly get into a boat with a side arm caster, and, if I committed this error unknowingly, I'd get out of the boat as soon as I discovered it. I value my face and eyes far too much to risk them in any such foolishness.

Last year, the Courts of Louisiana handed down a decision on side arm casting that should be a factor in persuading these boys to learn to fish properly.

Pals Vic and Nick rented a row boat and went fishing on a quiet lake. Nick was casting an artificial plug loaded with the usual hooks. He sent the plug sailing sideways. It caught Vic firmly in the ear and Vic, no longer his pal, sued him for damages. Vic, protesting to the court, said, "Nick almost tore off my ear with that plug full of hooks. As he was negligent in casting and I was not at fault, he should pay up."

"When two men fish from one small boat, each should watch out for himself while the other casts," Nick's lawyer replied. "Vic failed to do so, or he would have ducked. Under the law, a person engaged in a sport or game takes his own chances of an accident, so Nick shouldn't have to pay."

But Nick did have to pay. The court ruled, "A fisherman who makes a cast which takes a lateral or horizontal tangent so as to strike another person in the boat is negligent." The court added that the risk of such injuries "is not incidental to the sport of fishing."

It's better than even odds this judge is an angler who at one time or another was menaced by a side-wheeler whistling ganged hooks inches from his eyes. So there you have it. If you get snagged by a side arm artist, at least you can collect.

Of course, this all boils down to sportsmanship and consideration. It is neither to cast or follow any other action that needlessly endangers your companions. Let's all resolve to play it safe.

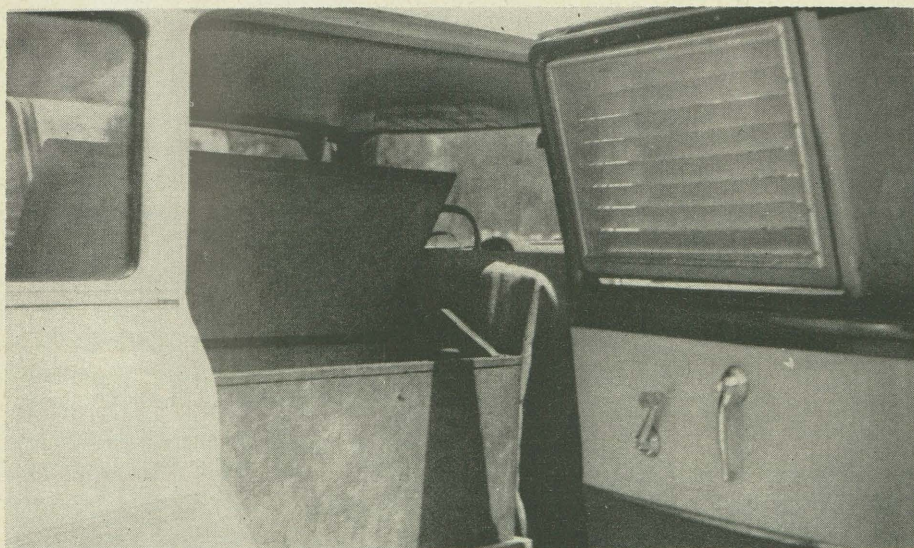
Bugs Are "Off"

I've been hearing great things about a new bug repellent called "Off." It's a new all-purpose insect repellent claimed to be twice as long-lasting as anything heretofore in use. The active ingredient, diethyl toluamide, is the result of a five-year research project by the U. S. Dept. of Agriculture in cooperation with the Dept. of Army. It can be safely applied to the skin or clothing, except rayon or dynel, and successfully protects the wearer against mosquitoes, biting flies, chiggers, ticks, and fleas. One of its best features is that it does not rub off easily under normal conditions. It has a pleasant odor unusual to products of this kind. Its pleasant lotion feel, or non-greasiness, makes it ideal for sportsmen, picnickers, backyard gardeners, children at play and outdoor workers.

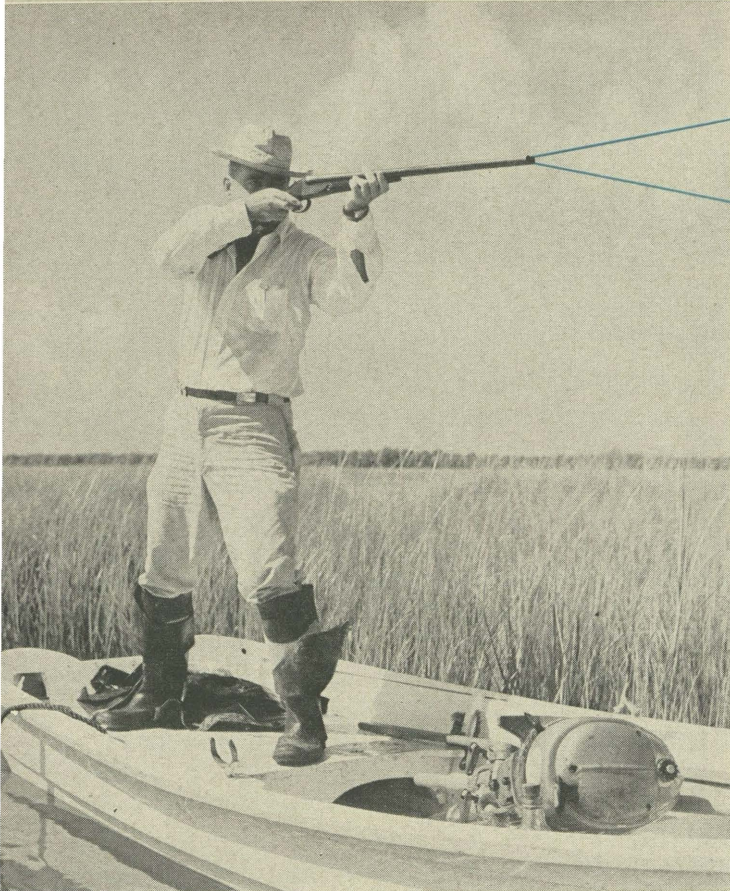
Of course, in Florida, our problem with mosquitoes is so small we hardly need a repellent. I recall other states, however, not so fortunate. Up in Minnesota, a few years ago, the bugs were really bad, and an incident occurred that had an unusual ending.

One of a group of campers got lost from his party and had to stay out in the woods alone overnight.

(Continued on page 38)



Large, insulated icebox with hose drain to outside of wagon opens to right rear door, its lid being part of the bed surface.



Generally, marsh hens flush close to the gun and do not fly far before alighting amid concealing marsh grass. Swing on them quickly but deliberately and knock them down during the early stage of their flight.

LIKE the living voices that use them, telephones have distinctive tones, some being low voiced and almost timid in their manner of getting attention, while others are blatantly loud and harsh to ears. A few — very few — but mine included — sometimes seem to ring as if trying to convey the momentary moods of callers.

The ring that came right in the middle of one of my favorite TV evening programs was politely insistent. Somehow, I knew it was genial Frank Schilling placing the call even before I lifted the receiver, not that I was expecting a call from Frank.

"Bill's home for a few days. Let's go marsh hen hunting! How about tomorrow morning?" was his straight to the point greeting when Frank recognized my acknowledging "Hello?"

Bill is Frank's oldest boy, 19, a third year student of nuclear science at the University of Florida. During hunting season, Bill tries to get home every possible weekend for a brief reunion with his family and at least a day of hunting.

The three of us usually start our season with marsh hen hunting trips, followed successively by October bow hunting in the national forest areas, dove shooting and duck, deer, turkey and squirrel shooting, in that order. Sometimes when the area to be hunted is closer to Gainesville than St. Petersburg, Frank and I will

WARM-UP

FOR WATERFOWL

By EDMUND McLAURIN

The early marsh hen hunting season offers the Florida scattergunner a chance to sharpen his eye and shooting techniques

meet Bill at some designated point. This time the scene of action was local.

"Sure, I'll go!" I said. "What time tomorrow, Frank?"

"Suppose we make it 9:00 o'clock. Bill and I will meet you at the Seminole Bridge." The site is marsh land, but traversed by a modern highway, and is a favorite haunt of the Clapper Rail, or true marsh hen, and the smaller, but equally legal to hunt, Sora.

When rails find an area that is to their liking, they usually populate it thickly and if observations result in a few being seen active within an area, you usually can count on good hunting. Using 7x35 mm. binoculars, Frank and I had studied the Seminole Bridge area on several different days. We knew that the birds were there, for we had spotted them feeding a short distance from shore lines during low tide stages, their daylight feeding periods.

Florida, the state with the longest coast line, has many miles of undeveloped salt and brackish marsh land, but desirable high tides do not regularly flood all this potential marsh hen hunting acreage as they do to a considerable extent in Nassau, Duval and St. Johns counties, which have borders on Florida's northeastern coast. Consequently, the best Florida marsh hen hunting is considered to be in that tri-county region. Other popular, productive areas are the tidal marshes of Brevard, Volusia and Flagler counties and certain sections of Dade and Monroe counties on the

east coast, and Gulf and Franklin counties on the west coast. But actually distribution of the Clapper Rail and various sub-species is substantial along both coasts of the state and locating good hunting areas is merely a matter of pre-trip observations, trial trips or both.

To the surprise of many Florida hunters, the largest rail species, the King Rail, is also found in numbers amid inland, fresh water marshes, where shooting is also legal of season.

Authorities T. Gilbert Pearson, long-time president of the National Association of Audubon Societies, and Edward H. Forbush, nationally known ornithologist, officially describe the Clapper Rail or marsh hen as being "about 16 inches in length. Color above, brownish-gray; below, lighter. Forehead entirely feathered down to base of bill; bill, long and slender." This is a general description. For adult birds, the authorities are more specific: "Adults—Forehead, dusky; crown, sides of head, neck, upper parts, and lower parts as far as abdomen, pale olive-ash streaked on back and shoulders with olive-brown; lores and throat, whitish; abdomen and under tail coverts, pale brownish white traversed with broad indefinite bars of brownish-gray; wing-quills and tail, plain dusky brown; bill, yellow, dusky on ridge and tip; feet, pale greenish-dusky; iris, reddish-brown. There is frequently much variation in the shades of plumage, Fall and Winter birds being much darker and with browner shades."

In Florida, many of the birds are noticeably darker in coloration, both on back and underparts.

Nests comprise select marsh grass blades and stalks, and are built either on the ground or six to eight inches above wet sod, usually amid long grass that naturally arches over them and conceals their contents. A nest may contain 6 to 15, white to buff, eggs blotched with chestnut and sometimes with lavender. Marsh hen young are able to swim and run soon after they are hatched, and are generally glossy black in color.

A coastal storm of hurricane force,



Customary technique for hunting marsh hens is for a two-man team to alternately pole a flat-bottom, shallow draft skiff in navigable water courses surrounding higher points of marsh lands mostly covered by a high water stage, while his partner maintains gun-ready position in the bow.

driving normal high water marks to new levels, will destroy thousands of nests and young birds, but, fortunately, marsh hens are prolific and new broods perpetuate the species.

As FLORIDA WILDLIFE has previously pointed out in its reviews of Sunshine State bird life, in addition to the Clapper Rail, there are five other species of rails known to occur within the state — the King Rail, the Virginia, the Sora, the Black and the Yellow, all being known as marsh hens. Distribution is varied; some species are common statewide, others have relatively local habitat.

If you are unfamiliar with marsh hen as exemplified by the Clapper Rail, or any of its related species, contact an experienced rail hunter and, with you using binoculars, get him to locate and point out birds to you prior to going hunting. Better still, hunt with him your first few times out, paying careful attention to his techniques and skills. Possessing the needed "know how" is important to marsh hen shooting success.

The customary technique for hunting the tasty hens is for half of a two-man team to alternately slowly pole or paddle a flat-bottomed, shallow draft skiff in navigable water courses surrounding higher points of marsh lands mostly covered by a high tide water stage, while his part-

ner maintains gun-ready position in the bow . . . It makes a simple, serene mental picture, but in reality the situation can have its drawbacks. For example, it is difficult — especially for a beginner — to maintain a balanced standing position in the bow of a boat that unpredictably glides smoothly ahead, hits underwater obstructions, scrapes bottom or rubs the sides of mudbanks and is otherwise subject to various influences despite the utmost skill by its handler. Taking a sitting position cuts down on the unbalancing effects of boat lurches and sudden stops, but also limits gun handling and gun swing. Fortunate, indeed, is the marsh hen hunter who has a companion, or hired guide, who knows the marshland water courses, who keeps his eyes on you most of the time so that he can stop and steady the boat when you put gun to shoulder and who instantly marks down your kill when you shoot!

The encroachment of a relentless, rising tide concentrates the birds in marsh areas not water covered, and at the same time expands the easy cruising range of the hunter's craft. Favored with such conditions, marsh hen hunting is possible at any legal hour, in fair weather or foul, in cool comfort or fat-melting heat. Florida marsh hen hunters are especially elated when the months of Septem-

(Continued on next page)



Marsh hens are not hard to kill. Given field loads of No. 7½ or No. 8 shot and a shotgun choke bored no tighter than Modified, even a beginner will take a sufficient number of hens to make for sport and later good eating.

(Continued from preceding page)

ber, October and November bring cool weather and high tides that practically cover marshes, to create almost perfect marsh hen hunting conditions for hunting from poled skiffs.

But, in many areas, as in portions of Pinellas County, much marsh hen inhabited acreage is never desirably covered by high tides, and in such localized hunting two different techniques are frequently substituted.

When normal tides are not sufficiently high to flood hunting areas and concentrate the marsh hens in remaining islands of marshland vegetation, a hip-booted hunter can foot slog weedy shores, marshy road embankments, fringes of tidal islands and meadow marshes, taking his birds as they flush.

The second method is to still-hunt at low tide, from a vantage point overlooking uncovered mud flats. At low tide, the rails emerge from the long grass and vegetation bordering such flats to feed a short distance from shore lines. Often they enter feeding sectors from vegetation covered runways, sometimes several

yards long, and quietly skirt shore lines in search of small mollusks, worms, snails, small crabs, shrimp, minnows, water plants, seeds and tubers as food.

Because the birds are reluctant to flush when they can resort to a get-away by running or skulking through seemingly impenetrable grass at swift speed, and are masters of the art of being elusive, the still-hunter will find a slingshot and glass marble ammunition handy for flushing sighted birds. Binoculars are also a big help in searching shore lines, helping to locate feeding hens as well as other good spots from which to still-hunt.

Neither of these methods will be as productive as hunting the high tide periods of the season from a slowly poled or paddled boat, but a sufficient number of birds can be taken to make for both sport and later good eating.

Marsh hens are not hard to kill. Given field loads of No. 7½ or No. 8 shot, a uniformly patterning shotgun and birds to shoot, even a poor shot will harvest some birds. Misses among beginners in the sport occur

usually from waiting too long to shoot (marsh hens generally fly only short distances before settling down again after being flushed), using a too highly choked shotgun on close targets and from attempting shots from unbalanced positions. Use small shot for a killing pattern, a shotgun choke bored no tighter than Modified, deliberately shoot flushed birds during the first half of average length flight and you'll surely kill your share!

Quite important to enjoyable marsh hen hunting is a good natured philosophy that overlooks the annoyances represented by mosquitoes, sticky mud, much arm and leg exercise, unlocated kills and occasionally encountered poisonous snakes! But, in the aggregate, it all adds up to fun for those sportsmen who can smile when the going is rough, and the shooting poor—as marsh hen hunting can be on some days.

I am fortunate in having habitually punctual hunting companions. I had no more than parked my car off the highway skirting Pinellas County's Seminole Lake when Frank and Bill rolled up in their International Harvester truck, ready to go.

We commented briefly about existing conditions and best hunting technique while we stuffed shells into pockets and adjusted the straps of our hip-length boots. In less than five minutes after our meeting we were ready to hunt.

Abreast, but spaced about fifty feet apart, we slogged across the muddy marshland and pushed our ways through low mangrove growth, with the understanding that the two end men would take birds flushing to their respective sides and that the middle gun would take the straight-aways. I was left end of the three-some, Bill center and Frank right end. In the soft, tenacious mud of low tide our heavy hip-boots frequently mired deeply; it was tough going!

Bill scored first. We had not gone more than one hundred feet in our walk 'em up rail hunt before a marsh hen flushed ahead of us, going straight away. A seemingly ungainly

bird, legs dangling and wings working laboriously to sustain flight, the hen slowly winged just above the top of the marsh grass. Bill knocked it down with a quick, clean shot.

I gave him the O.K. finger sign and he smilingly acknowledged my recognition of his accurate shooting.

While Bill was retrieving his kill, I flushed an easy shot that bore off to my left, only a few yards from my gun. I let him have a load of No. 8's and he folded, without need of a quick follow-up shot.

Then Bill got another, Frank two in succession and I my second bird. During the next hour we all downed additional clappers. The kill count seven, six and six respectively by the time we had crossed the mile long stretch of marsh and mangrove growth.

"We've enough for eating," Frank said. "Let's call it a day. We'll hunt another area tomorrow and come back here next week. Agreed?"

"Suits me," I answered. "Phone me tonight about the time, and where to meet you fellows for tomorrow's hunt."

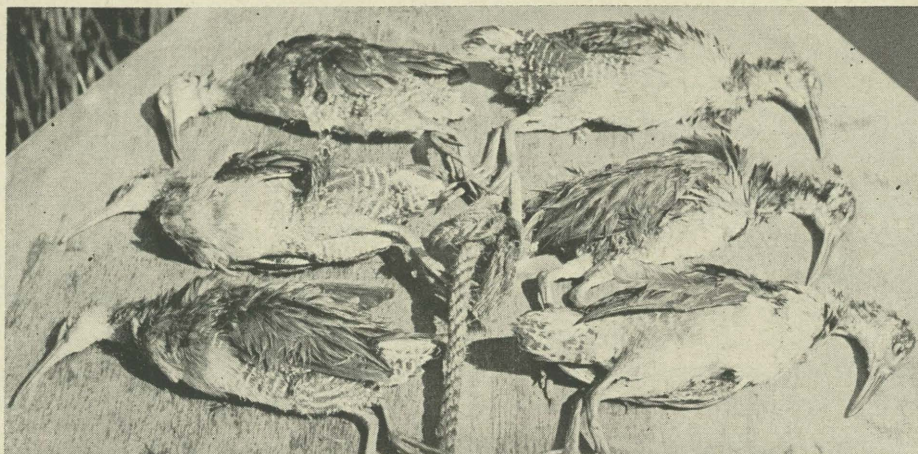
"No need to phone," Frank said. "Bill and I will talk with you at supper about tomorrow's hunt. We're expecting you at six for supper, you know."

"Thanks," I said. "I'll be there." Frank's wife is a culinary wizard when it comes to preparing game and freshly caught seafood for the table.

Prepared by a cook with knowledge of proper preparation, the marsh hen is a table delicacy. The easiest way to prepare them for cooking is to skin them, and drawing as soon as possible after killing is recommended, for best flavor.

After skinning the birds, a quick and easy way to remove shot from the meat is to hammer the point of a small nail flat, to form a tiny spade with rough edges, and then insert it in each shot hole for twist-motion removal of shot and embedded feathers. The method is much easier than digging the small shot out with a knife.

Soak the skinned and drawn birds



Good eating here! Draw birds as soon as possible; skin them, and remove embedded shot and feathers with point of a small nail hammered flat to form a tiny spade. Soak the skinned and drawn birds for a few hours — preferably overnight — in strong salt water before cooking.

for a few hours—preferably overnight—in strong salt water before broiling, baking or frying for a truly tasty dish.

Marsh hens, given reasonably favorable conditions for survival and perpetuation of the species, are sure to hold their own, even in the very shadows of an expanding urban population. In time they will undoubtedly be more popularly hunted game birds on the Florida scene than at present. Seemingly, every

hunter who gives marsh hen hunting a serious try, likes the sport.

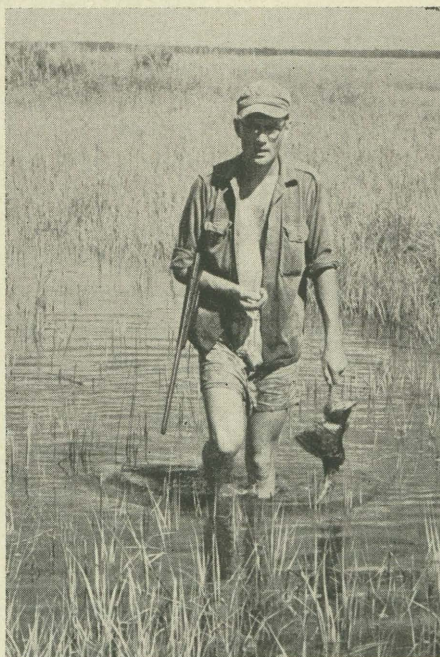
This year's open season in Florida stretches over 70 full days of sunrise to sunset shooting, with bag limits increased from 10 to 15 birds. For many, it is going to be happy hunting at high tide; for the more avid hen hunters it will be the same at *any* tide!

Because marsh hens are classified as migratory game birds, subject to Federal waterfowl hunting regulations and designated seasons, shooting from a boat with outboard motor attached, or from an inboard engine equipped boat is prohibited. Likewise, no shotgun capable of holding more than three shells in magazine and chamber combined may be used for the taking of marsh hens, nor can rifles be used. A state hunting license is required of hunters between 16 and 65 years of age.

While Florida has its own resident rail populations, many of the fifty to sixty thousand birds that annually fall to resident hunters migrate from the marshes of the Carolinas, and even from Delaware and more northern states. Despite a frail body structure and awkward, ungainly local flight demonstrations, the marsh hen is a skilled and sustained nocturnal flyer, with mass movements from one area to another by night being common to the clan.

For those who can find the time to also hunt outside of Florida this

(Continued on page 38)



This hunter found his kill, but many downed marsh hens are often unlocated, despite prolonged searching. A bird dog is a great help in recovering kills and flushing other birds from marshy retreats.

THE day's bass fishing had been anything but red hot. Despite hours of fishing with both sinking and top water spinning lures, the elusive large mouths had failed to respond.

Now night was rapidly lowering a velvety black curtain over Lake Tsala Apopka. I made one more "last cast" towards a clump of lily pads, as likely a looking bass haunt as any fisherman could hope to find.

The lure plopped the surface to come to rest within inches of the bonnets. Wham! Something hit savagely at the plug. It was a power-packed strike. In the gloom, I couldn't tell what I had connected with but it was hefty, and it had definite ideas against coming to my boat.

Only the splashing water as the fish thrashed toward the security of the weed beds shattered the gathering dusk. And pandemonium broke loose in the boat.

My wife and two daughters—two and nine—who'd come along for the ride, added to the confusion.

My eldest daughter kept screaming, "Don't lose him, Daddy! Don't lose him!" She obviously did not have too high a regard for my fishing skill.

My wife kept exclaiming, "You've got a fish! You've got a fish!" It was not likely to be an alligator, I thought.

And I kept struggling with my unseen foe. We battled it out for some five minutes, with my heart triple timing, for the spinning rod bent dangerously I thought, by my old bait casting standards. The fish stubbornly continued to submarine and my drag whined as he tore out line.

Finally his runs weakened and I brought him along-



BOWFINS are SCRAPPERS

By MAX HUNN

side. No hefty bass this. I had made the acquaintance—an exciting one, too—with the bowfin, one of the more stubborn if not spectacular members of the fighting fish clan. He weighed in a mere 2½ pounds, but he had made every ounce count.

He had given me a short but furious battle. Later I learned that fighting is one of the trademarks of the tribe. It is not the spectacular tail dancing of the tarpon, nor the dashing runs of the bonefish but heavy, stubborn fight it is. Like them, he is of little or no table worth, but also like them, he is full of battle potentialities.

Since then muds have given me many an argument in various places and at unexpected moments. I have gradually learned more about this pugnacious fighter—for he is a bit of a bully type, hitting both artificials and live baits with reckless abandon.

His official common name is bowfin, but he is perhaps more often called mudfish in the south and dogfish in the north and midwest. You may encounter this remaining member of a prehistoric piscatorial family over a wide range of territory. He is found in an area from the Great Lakes to the Gulf of Mexico. Among the most heavily populated sections are the St. Lawrence-Champlain basin to Quebec and Vermont, west of the Appalachians south to Florida and Texas, and on the Atlantic slope from the Carolinas south.

You may hear him called blackfish, grindle, brindle cat, choupique, cottonfish, cypress trout, lawyer, scaled ling, poisson de marais, and speckled cat. But whatever his name, he is a battler, long on stamina and rough on tackle.

The mudfish gets his most appropriate southern name from his regular habitat—muddy bottoms of stiller waters. He has caused more than one angler's heart to double time as he attacked with a vicious lunge an

The author prepares to unhook a mudfish landed with a black pork eel and weedless hook on a spinning rod in the Tamiami Trail Canal west of Miami, Florida.

artificial lure or live minnow.

When he hits, there is no question that you have had a strike, but his hard mouth presents a real problem in hook setting. And you will find he can shake a hook with the same ease that a largemouth bass sheds all but the most solidly sunken barbs.

Once he hits for real the battle is on. He is not a spectacular scrapper. More often than not he conducts a tugging, submarine campaign, diving deep and seeking the refuge of under water obstacles, and threshing the water only when he is brought near the surface. Even when pulled to the top, he does not quit. He will battle all the way and he is hard to kill.

Since my first encounter with the bowfin on the west central Florida lake, I have tangled with a lot of his brethren, and today, I still get a kick out of mixing it up with them. When things are dull bass-wise, I am not at all adverse to fishing for Mr. Bowfin, for he is no pansy as a scrapper.

He is probably the most expensive fresh water fish I have personally encountered for, besides offering no table profit, he is also a tackle buster. I can chalk up at least a half dozen good lures lost as a result of tangling with Mr. Mud.

Sometimes he is as finicky as a bass when it comes to lure choice. I had a merry-go-round late one afternoon a couple of miles east of Coopertown on the Tamiami Trail. I ran into a school of mudfish—they tend to travel in small packs—and they were in a savage mood.

My second cast with a yellow feather and spinner with a pork strip, hooked into a battling 2-pounder. A few minutes later I tangled with one that beat me. It was a solid strike near a sunken tree close to the far bank. The reel screamed. I cranked and he backed off against my drag and hit for the bottom. Minutes passed and we were locked at a standstill. I could not move him. I tried all my tricks, but he would not budge. This went on for five minutes.

My wrists were tiring, and I decided he had snagged me on a sunken log. But he hadn't. I released the tension, and I felt him surge, and my lure came free as he shook it. It apparently was not firmly hooked, but he was too big for me to move and he fooled me with his submerged log tactics. He did not have me snagged for the lure came free too easily with a slackened line. A couple of days later, I had a similar experience, only this mudfish did hook me on a snag and my favorite spinner fly is now at the bottom of the canal.

Mudfish grow to a husky size. Maybe I got hold of one of the grand daddy's that inhabit the real deep waters of the canal. The Florida Game and Fresh Water Fish Commission crew, removing rough fish from the Tamiami Canal boated mudfish as heavy as 17 pounds.

During that afternoon merry-go-round, I hooked ten mudfish—each a battler—and landed five, lost one that broke my line at the last minute taking my lure with



Bill Wrightson carefully works a spinning eel in the Tamiami Trail Canal just after dawn while fishing for bass and usually getting fighting mudfish.

him. Four others shook the hook after a stubborn fight.

The strikes were on deep running lures and the mudfish were choosy as to what they hit. They smacked a yellow feathered Bunyan 66 with abandon, would hit a black plastic eel with a weedless hook if weighted enough to go deep, and a deep running under water darter. But they would have no part of a black spoon with a pork strip nor a variety of other artificials.

Bill Wrightson, a fishing buddy of mine, and I confirmed our opinion that mudfish are unpredictable lure hitters during a similar busy fishing session one Saturday morning a short time later.

We were fishing for bass. I was using a green pork frog on a weedless hook, and Bill was using a plastic eel. For an hour and a half we had no luck. Bill did lose a nice black bass at the last minute when the fish threw the hook just as Bill was about to land him.

Then suddenly the fireworks started. We ran into a pack of mudfish and they were in one of their savage striking moods.

Eleven straight casts with a pork frog, I had a hit and landed 6 mudfish weighing from 2 to 5 pounds each. During another interval of 20 casts, I chalked up 16 strikes for four fish landed. Probably I could have landed more but I was not too interested. After playing each one, I slacked off on the line and they usually threw the hook.

I experimented with a silver spoon and an under water darter, and Bill with a River Runt, but the mudfish would not hit anything but a green pork frog or an eel. They are temperamental all right.

But with a frog and eel, in a matter of an hour and a half we landed 20 mudfish and had strikes from as many more. It was wonderful practice at handling a rod with a fighting foe, if nothing more.

(Continued on page 41)



Photo by Bob Revels

OPEN DOOR for OUTDOORSMEN

By MATT WHISENHUNT



The thriving deer herd on Eglin Air Force Base is a primary attraction for hunters. Under scientific management the deer population has increased three hundred per cent.

A MODERN, up-to-the-minute bastion of the nation's jet and atom age military defenses, Eglin Air Force Base occupies a sizeable chunk of northwest Florida real estate. Within the boundaries of the sprawling reservation is an abundance of wildlife second to few if any such areas in the southeastern United States.

This in itself is nothing unusual; most military areas support wildlife in greater or lesser abundance. Unfortunately, in many parts of the country, hunters and fishermen find themselves coming out on the short end whenever and wherever the military finds it necessary to expand or to take over territory formerly available for recreation purposes. Dramatically different in this respect, the outdoorsman, civilian as well as military, is greeted with open arms on northwest Florida's huge, sprawling Eglin Air Force Base.

Back in the days of our national defense awakening, just prior to World War II, a major portion of the present air proving ground comprised the Choctawhatchee National Forest. By Presidential Proclamation in 1940, the 340,000 acre National Forest was transferred to the U. S. Army Air Corps. Adjacent lands were acquired to enlarge the reservation to its present 461,000 acres, making Eglin one of the largest air proving grounds in the United States.

At the time the Air Corps assumed control of the area, both hunting and fishing were generally acknowledged to be poor. During the following nine years, with only restricted hunting allowed, some forms of wildlife showed a gradual population increase. This was especially true of the deer herd.

During this period, it became ap-

Forest fire suppression is one of the important functions of the Eglin Forestry Section. Woods fires destroy both timber and valuable wildlife habitat.

parent that there was a definite need for a well planned scientific game management program if the public was to enjoy the wildlife potential of the area. The stumbling block in initiating such a program was the fact that the Air Force had neither the authority nor adequate resources to carry out any sort of wildlife conservation and management project.

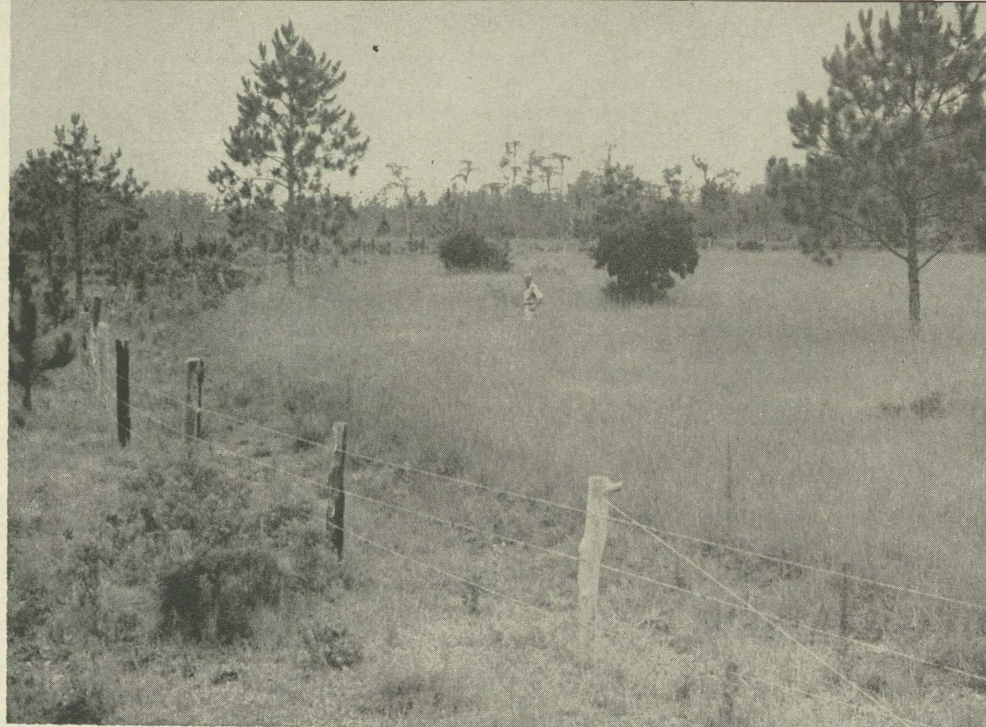
In the 81st Congress, Representative Bob Sikes introduced a bill which resulted in the launching of the present Eglin wildlife management program. Enactment of Public Law 345 during the 1949 session provided both the authority and a source of funds with which to accomplish the needed game and fish conservation activity. It made provisions for the assessment of fees for hunting and fishing permits and made certain that this income would be used only in carrying out the provisions of the new law.

Under the provision of Public Law 345, the Commander, Air Proving Ground Command, had the responsibility for the conduct of the program. He appoints an eight member wildlife board with the authority to set rules, regulations, and to act as a clearing house for wildlife management suggestions prior to their being put into practice. Members of the Board include officers and enlisted men as well as civilians.

Since the Eglin Forestry Branch was already concerned with timber production, fire protection, and related forest management activities, it was considered most appropriate that the new wildlife management activities could most appropriately be placed in the hands of that section.

Once the ball was rolling with an established organization and program, there was the need for sound advice on how to improve hunting and fishing on the base. The Eglin Wildlife Board required at least reasonable assurance that the money and effort expended would result in better hunting and fishing. This obviously called for the guiding hand of individuals trained in the technical aspects of game and fish management. The U. S. Fish and Wildlife Service and the Florida Game and Fresh Water Fish Commission were able to provide the required professional help.

The Fish and Wildlife Service has furnished the majority of fish to stock the many ponds that have been constructed in the area. In addition, they have furnished guidance on stocking ratios, pond construction, fertilizing, pond reclamation, and many other problems that have arisen with the fish management phase of the program.



Cultivation of food plants of value to wildlife is one of the tools employed in modern game management. In this photo is shown a fine stand of Pensacola bahia, an important turkey food plant also used by other wildlife.

The Florida Game and Fresh Water Fish Commission provides both technical and enforcement assistance through a resident wildlife management specialist and assigned Wildlife officers. State Game Biologists make recommendations for habitat manipulation such as planting, burning, clearing, plowing, and other techniques. They also provide a continuous census of the various species of game and make recommendations

(Continued on next page)

Adding greatly to the year around recreational use of the Air Force controlled Eglin area are fifteen ponds well stocked with bass and other warm water game fish. Additional ponds are being constructed at the rate of three each year.

Photo by M. Naggier





Photo by Jim Floyd

Each fall, before the regular gun hunting season opens, archers are given a chance to try for a buck. With bow and arrow hunting becoming increasingly popular, more archers are taking advantage of this special hunt.

(Continued from preceding page)

for changes in regulations to maintain game population levels within the capacity of the habitat. The Commission also provides seven enforcement officers the year around, with Eglin Air Force Base as part of their regular work district. During the hunting season the Commission assigns an average of twelve additional enforcement officers to assist the Forestry Branch with enforcement of game laws and special Eglin hunting regulations.

Eglin Air Force Base is also a State Game Management Area which means the rules and regulations governing hunting and fishing on the Base become state laws and violations can be prosecuted in local courts. This is believed to be one of the reasons why the game and fish law violations have been kept to a minimum on the area.

Sportsmen's groups can make requests or suggestions, either in writing or by appearing before the Eglin Wildlife Board, for changes in rules and regulations. Each year representatives of all known sportsmen's organizations in northwest Florida are invited to meet with the Wildlife Board for the purpose of presenting any suggestions they may have concerning the coming season. Their requests and suggestions are carefully weighed by the Board and if there are no serious objections the changes are put into effect. Some of the requests advanced by such groups have

a selfish motive that would benefit only a few. This entails careful weeding out by the Wildlife Board.

DEER — Because the greatest demand has been for deer hunting, more has been accomplished on the Eglin area with this game species than with any other. The estimated deer herd of 2,500 in 1940 has been increased to approximately 10,000 in 1957. This represents an increase of 300 per cent in the past seventeen years.

During this same period the number of hunters has increased from 2,000 to 8,209 which represents an increase of 310 per cent. The management techniques employed were obviously sound in order to increase the deer herd, even with continual increase in hunting pressure. Gun hunters harvested an estimated 1,000 deer from this area during the 1956 season.

Sportsmen were allowed to hunt on about 350,000 acres of the Base during the 1956 season. The remaining 110,000 acres were primarily bombing ranges with adjacent danger areas and areas closed to hunting because of a low deer population. When a deer census indicates a low population of deer in a certain area, the area is closed to hunting until the herd builds up to shootable numbers.

A pre-gun season archery hunt is allowed each year, and is becoming increasingly popular. The number of archery hunters increased 48 per cent in 1956 over 1955 with 158 archers taking seven deer during the 1956



Photo by Max Hunn

Wild hogs have been declared game animals on the Base. Hogs trapped from the bombing ranges and closed areas are moved into sections of the reservation open to hunting.

short period. The Eglin Air Force Base is becoming renowned as one of the best bow-and-arrow hunting areas in the United States. This type hunting is being encouraged because it takes very little game to satisfy a large number of hunters.

TURKEY — The turkey population has increased from an estimated 150 birds to 350, a jump of 113 per cent in the past seventeen years. This has not been an outstanding accomplishment but it has resulted in a successful spring gobbler hunt in the past three years. Considerably more emphasis on turkey management and restocking is planned for the future.

QUAIL — In 1950 there was an estimated quail density of one bird to twenty-five acres in a 3,000 acre quail development and management area. The area supported one bird to 6.5 acres in 1956, or an increase of 283 percent. The increase resulted from planting of about thirty acres of quail foods along with various methods of habitat manipulation. The criticism of the quail program is that it occupies such a small area. Methods that can be economically justified are being investigated for application to larger areas.

Experiments with pen-reared quail and turkey have been decided failures.

The introduction of black bear has neither failed nor proved successful. Bear are present on the Base in approximately the same numbers released several years ago. They have not increased as was expected

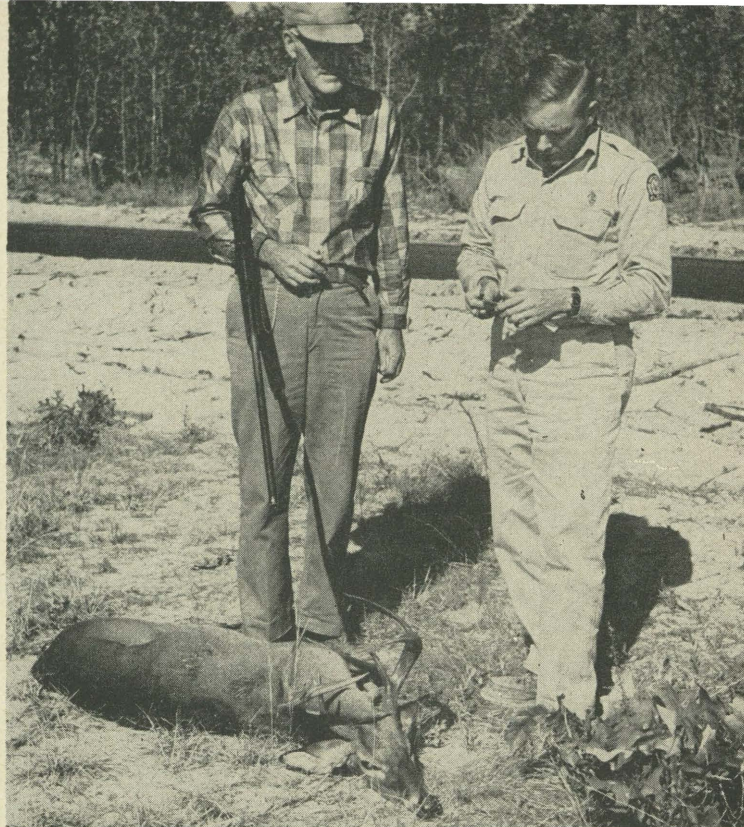


Photo by Jim Floyd

From 1940 to 1957 the Eglin deer herd increased from 2,500 animals to approximately 10,000. During the 1956 season, gun hunters harvested an estimated 1,000 animals.

There will be additional stocking of bear before conclusions are drawn as to the success or failure of this venture.

OTHER GAME — Squirrel hunting is extremely good in the hardwood swamps of Eglin Air Force Base. Mast producing trees and den trees are left in timber cutting operations to encourage habitation by this animal.

Wild hogs have been declared a game animal on the Base and the hunting they afford is becoming increasingly popular. The hogs are trapped from the bombing ranges and closed areas each year and moved into areas open to hunting on the reservation. Male hogs that are caught by this operation are castrated and treated before being released. Present and future management plans call for more consideration of this species.

Beaver have been introduced and are well established. The beaver's importance as a game or furbearing animal is probably negligible on the Base, but their activities are extremely important to the water and soil conservation program. One of the beaver ponds covers about two acres and has been stocked with fish. Present plans are to place beaver in other areas of suitable habitat on the reservation.

FRESH WATER FISHING — Fresh water fishing was confined to the natural streams and lakes on the reservation prior to 1950. These waters of low fertility offered the angler poor prospects for catching a string

(Continued on page 42)

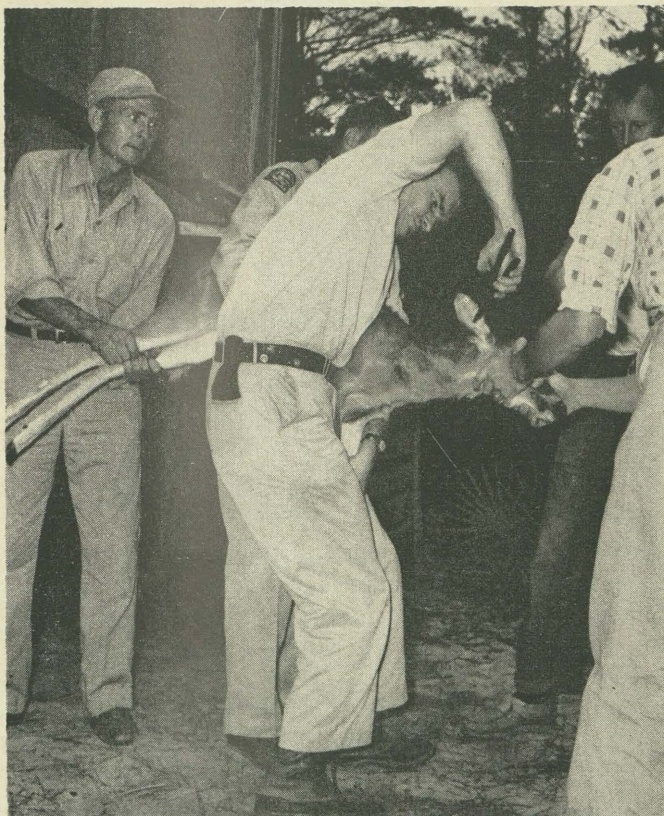


Photo by M. Naggiar

When they become too numerous in any one locality, excess deer are live trapped and released in places where the deer population is low. In the photo above, game management men ear tag a deer before releasing it.



Photo by Mozart

Leading in popularity with southern panfish anglers is the bluegill. Ready and willing biters on a variety of baits and good hitters on small artificials, the prolific bluegills inhabit practically all the fresh waters of the state.

Bob's plug landed in the shallow water near the marshy western shoreline of Lake Munson. It lay on the surface, bobbing lightly as the cool breeze from the Gulf not far to the south kicked up little ripples and forced us back into the jackets we had shed under the warm afternoon sun.

In this same spot we had taken nine bass in two hours, ranging from three-quarters of a pound to nearly three pounds — and the water here is only about three feet deep!

Bob jerked the rod tip a couple of times, but before he could retrieve the plug even a foot or two the water boiled all around it and the lure headed toward a nearby weed bed.

"Looks like you have one that'll put my three-pounder in the shade," I joshed him.

"Huh-uh!" he corrected me. "But this is the first time I've ever seen a bluegill hit a bass plug!"

That bluegill fought just like a bass and I couldn't believe it wasn't a bass until it was in the net. It only weighed half a pound and *it had hit a plug half its own length!*

Taking bluegills while fishing for bass is not uncommon in Florida. For years the Sunshine State has been

FLORIDA'S

By JULIUS STURM

the recognized bass capital of the world. It may come as somewhat of a surprise to many people to learn it is also the acknowledged bluegill center.

That, of course, won't surprise a bluegill fisherman—which you can define as any man, woman or child who can hold a cane pole, a casting rod, or a fly rod, who can bait a hook, and who can start pulling when the fish does.

The bluegill is known in Florida variously as a bream (most frequently pronounced "brim"), sunfish, or copperhead. This by no means exhausts his long string of aliases, because this species is the most common panfish found anywhere in the United States.

But no matter by what name you know this tasty little battler, you can't fail to recognize him. The purple-blue zebra stripes on his side and the bright red breast make him a standout for looks.

The thing that endears him to fisherman, however, is the amount of fight wrapped up in such a small bundle. The average bluegill caught here weighs about half a pound, but many—and eatable ones—are smaller. In fact, the record was recorded at Lake Ketona in Alabama some years ago—a whopping 4½ pounds! Whopping, that is, for bluegills.

The bluegill is just as common and down-to-earth as most of us who go after him. Not the least bit finicky about what he eats either; just anything you happen to offer—the entire range: minnows, insects, worms, cut meat or fish—he's not choosy. This shows the voracious appetite of this fish. He never seems to get enough to eat!

Nor is he as choosy as most fish about the places where he hangs out, although the lunkers will usually be found in water fifteen to thirty, or more, feet deep. In lakes you'll find them around lily pads, hyacinths, brushpiles, stumps, bridges, deep holes, and weed beds. Look in the rivers at bends, bridges, in quiet ponds, and along sandy stretches of beach. As you'll probably have noticed, this list includes about everywhere. And that's just where you'll find them—about everywhere!

You can't fish out bluegills like you can other fish. One reason is that the species lays a prodigious number of eggs. In Minnesota, a few years ago, a bluegill was examined and found to contain 67,000 eggs! Then again, its rate of growth is phenomenal. At Lakeland,

BLUE BATTLER

A worthy opponent for any light

tackle wielder, the mighty Bluegill owns

the reigning crown of Florida's panfishes.

in the early '50's, a farmer stocked a pond with fingerlings and caught 5-inch bluegills *three months later!* Within two years he was catching half-pounders!

A third factor is that so many of the fingerlings survive to reach maturity. After the first year the bluegill is only rarely the target of fish which feed on pan varieties. Its body structure has a characteristic stiffness, and it has spines on its back which act as a deterrent to would-be attackers. Bass and pike—big ones—have choked to death trying to make a meal of a good-sized bluegill.

Like most other fish, bluegills go into deeper water during the hot part of the day, and come to the surface in the morning and during the cool part of the evening—just before and after sunset. That's the ideal time of day to go after them. Watch for rises in spots bluegills are known to frequent. The rises, if there are any, will be numerous because the schools are large.

Don't let anyone try to tell you catching bluegills is at all hard. They're probably the easiest fish there is to take. But knowing a little more than the average fisherman about your quarry never hurt anyone — to our knowledge.

Most people fish for this species with a cane pole, with or without a bobber. This is probably easiest of all, because all you have to do is put your line in a likely spot and "pull when the fish does." Worms are excellent bait, but if they are large break off pieces. Otherwise the fish will take bites and avoid the hook.

You can use a casting rod with equally good results. Try poppers and spinners with this type of tackle.

But if you want the real, honest-to-goodness pleasure from bluegill fishing, try your hand with a fly rod. Even though there's nothing difficult about catching this species, taking them on fly tackle requires a little more finesse and thus adds to the appeal it has for the true fisherman.

You'll find that shallower waters are better for this method. Take your time; don't hurry it. Your casts must be smooth, and they cannot be either constant or hurried.

Don't get your fly off the water and back into the air too fast. Let it lie there, and give it occasional twitches. But be careful you don't overdo it. The dividing line between a twitch that looks natural—from a bluegill's point of view—and one that is obviously artificial, is often narrow. But once you've mastered this trick you're in for some real thrills.

Most dry trout flies work fine. A Black gnat or a Brown Hackle, perhaps a red-and-yellow, are probably best during the daylight hours. Try a White Miller after dark. If you have any flies that a bluegill might mistake for a flying bee or an ant, they should be good. Or try other combinations of flies with yellow, red, and black. Some folks swear by some combination or other, while other fishermen will tell you *that* type can't possibly work—but try *theirs*. As a matter of fact, most flies are good if the bluegills are in the mood for them (and who ever saw a bluegill who wasn't in the mood for a free lunch?).

Wet flies are just as good. The idea

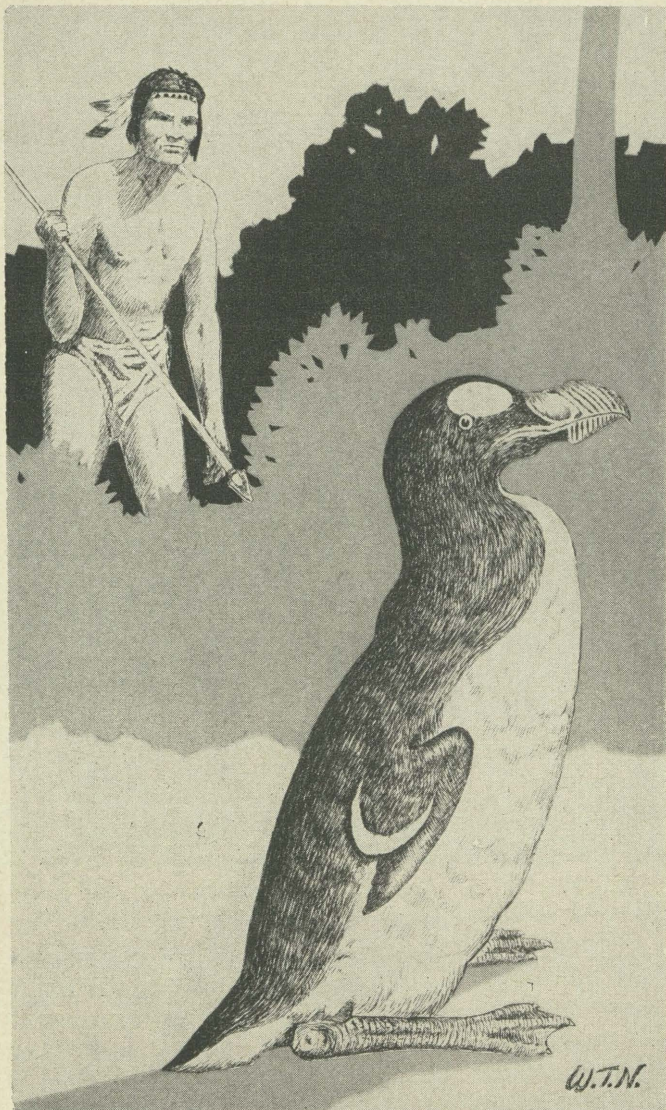
here is to let them sink to about the depth you figure the bluegills are feeding, then retrieve them erratically. Pork rind with a following hook is usually good along this line, and a red-and-yellow fly behind a small spinner is as close to a sure killer as there is in piscatorial lore.

Try trolling with a small sinker and a streamer hair fly or a spinner-and-bucktail. And if you can find the inlet to the lake you're fishing, or work just above a dam, you should have even better results.

No matter how you're going after bluegills—with artificial lures, that is—a word of caution. Bluegills have a peculiarity often overlooked by fishermen. They may be clustered around a stump or stand of weeds, and if your lure actually lands against the stump or among the weeds and falls into the water you may get immediate action. But if it lands as much as five or six inches away from the stump or weeds it may go begging because, for some reason, the bluegills just won't come out for it! Perhaps the naturalness with which a fly falls into the water from a log or some weeds gives it an appearance of the real thing which it can't always have when it lands in the open water.

No matter what method you use to lure bluegills into your frying pan, there's an appeal to fishing for this delicious, spirited little tussler that you won't find in fishing for even Florida's famed largemouth bass. It's a restful kind of fishing — along a pier, a shoreline, or even from a boat on a still lake in the early evening. The long shadows of trees fall across the surface, giving the black water an even blacker appearance. Perhaps a little early night breeze ripples the otherwise mirrowed surface, and the frogs and crickets are tuning up for their nightly symphony. All around you, near any kind of obstruction or cover, you see gently widening, concentric circles where bluegills are feeding on insects which are unfortunate enough to touch the water.

(Continued on page 38)



When The AUKS Came To Florida

By WILFRED T. NEILL

at the very rear of the body; and when the bird was in a hurry, its broad, paddle-like feet churned the water. Sailors declared that a boat propelled by six oars could not keep up with a great auk. And the bird did not have to swim only at the surface; it could dive deeply, and travel long distances under water. In its method of swimming this auk differed from penguins; for the latter swim with their flipper-like wings, and use the feet only for steering. The great auk had to be a fast and powerful swimmer, to catch the small fishes which were its main food and to elude sharks and other killers of the deep. It had endurance, too; it could swim for hundreds of miles, following the migrating fishes southward in the winter and northward again in the spring.

Like penguins, the great auk was slow and clumsy on land. With feet at the very rear of the body, the bird had to stand upright in order to walk, and then could progress only with a slow, waddling gait. Sometimes, again like penguins, the auk would rest flat on its belly instead of remaining constantly upright. On land it was exposed to many enemies, for some of the islands it visited might harbor mink, weasel, marten, wolverine, otter, skunk, fox, wolf, lynx, bobcat or even polar bear. On land the great auk was also hunted by Eskimos and by some of the more northerly Indian tribes. The Eskimos, in particular, valued the bird for its dense, downy plumage. This plumage effectively installed the auk against the cold Atlantic waters; and the Eskimos took advantage of the circumstance. They would kill a number of auks, skin them, and sew the hides together to make warm jackets for themselves.

Although exposed to many dangers on land, the great auks had to leave the water occasionally; for there were eggs to be laid, and helpless young to be cared for. The auks usually came ashore to nest on rocky islands and coasts. Perhaps "nest" is not the proper word, for no nest was built; the single egg was

AMONG HER MANY MARVELS, Nature has produced a few birds which do not fly, but instead swim in the sea or waddle about on land. Most familiar of these flightless birds are the penguins—comical creatures, upright and manlike in posture. Penguins are confined to the southern hemisphere, from the shores of Antarctica to the Equator; there are none in the far north. However, in the more northerly waters there are some remarkably penguin-like birds, called auks. These auks are not closely related to penguins, in spite of many similarities between the two. The story of the auks is an interesting one, especially since it involves Florida.

Most impressive of these northern sea birds was the great auk. It was a huge, heavy bird standing about 30 inches high. It could not fly at all, its wings being reduced to paddle-like flippers (see accompanying sketch). Swimming and diving were the great auk's specialties. The bird's legs were set far back,

THE EARLY INDIANS HUNTED THE GREAT AUK ALONG FLORIDA'S SEA BEACHES

deposited on the bare rock. The egg was very large, white with brown spots and mottlings. No two eggs were alike in markings. Sailors who raided the auk colonies said that each female recognized her own egg, among hundreds of others, by its characteristic pattern. This seems improbable, but there was something quite remarkable about an auk's egg. It was very large at one end, and tapered to a sort of blunt point at the other end. Because of its shape, the egg would not roll away; it could only roll in a little circle about the pointed end. Thus the egg was in no danger of rolling off a rock and breaking, or of falling into the sea. The auk had to brood its egg almost constantly, and also guard it from other sea birds that frequented the same islands.

We do not know how long the egg was brooded. We do not know whether the parent birds took turns sitting on the egg, or what the nestling was fed, or when it was introduced to the water, or how rapidly it grew. Regrettably, the great auk vanished from most of its range before much was learned about its life history. Its disappearance can be blamed partly, but not entirely, on man.

Originally, the great auk was widely distributed in the North Atlantic. It was to be found, at least in summer, around Montauk Point, Long Island, and also on Cape Cod, Massachusetts. From there it ranged northward along the coasts of Maine and the Canadian provinces of Nova Scotia, Newfoundland and Labrador. From Newfoundland it ranged eastward across a thousand miles of water to southern Greenland, thence eastward another seven or eight hundred miles to Iceland, and from there through the Faeroes to the Shetland Islands and so to the British Isles. It also reached continental Europe, occurring along the coasts of Denmark and Norway. Thus the great auk inhabited both the Old World and the New.

Columbus did not see the great auk, for his voyages were too far to the south. But in 1497, just a few years after the discovery of America, John Cabot set sail from England and reached what is now called Nova Scotia, in eastern Canada. On the Canadian coasts and offshore islands he saw the great auks in abundance. Shortly thereafter, John's son Sebastian explored the coast of eastern Canada and the northeastern United States. He, too, reported the strange birds to be very numerous there. They were sitting upright

on the sea cliffs, conspicuous in their black-and-white plumage; and to the Cabots they resembled soldiers on guard.

Around 1497 or 1498, adventurous fishermen, coming from France in small sailing vessels, also reached Canada. In Newfoundland they were impressed with the abundance of great auks, which they began to kill for food. In those days, sailors got very little fresh meat, and they welcomed a meal of auk flesh even though it was somewhat "fishy" to the taste. So the fishermen rampaged through the auk colonies, killing the great birds right and left. Slow and clumsy on land, the auks were easy prey. The sailors banged them on the head with clubs, or just grabbed them and wrung their necks. The eggs of the auk also proved to be excellent food, and the fishermen gathered them by the basketful. Thus, even at this early date, the wanton destruction of the great auk had begun.

In 1534, Jacques Cartier sailed from France to the New World, where he explored the Canadian coasts. He saw the auks in Newfoundland and on islands in the Gulf of St. Lawrence. Just off Newfoundland he found an island, now called Funk Island, where the great auks were especially numerous. Like other sailors before him, Cartier decided to provision his ships with auk meat. He sent some of his men ashore to kill the birds, and in a little while they had slaughtered over a thousand. Cartier had the birds skinned, cleaned, and salted down. Each of his ships salted down five or six big barrels of auks.

Thereafter, fishermen and explorers in North Atlantic waters relied heavily on the great auk for food. One sailor wrote that his party, in less than half an hour, was able to fill two boats with the bodies of slain auks. During the 1500's, the 1600's, and the early 1700's, most of the auk colonies were wiped out. In 1760 a new menace beset the unfortunate bird. At this time quite a few ships were cruising the North Atlantic for the sole purpose of killing certain ducks called "eider." These ducks were the source of eider-down, highly prized for stuffing mattresses, quilts and the like. The eider ducks were fast vanishing as a result of the ceaseless hunting; and so the feather gatherers turned their attention to the great auk. The plumage of the auk proved to be just as soft and dense as that of the eider ducks. Consequently, the few colonies of auks remaining in the New World were sought out, and the birds recklessly destroyed. In 1775 the feather hunters rediscovered Funk Island, where Cartier had seen so many auks more than 200 years before. The auks were still there; Funk Island was, in fact, their last stronghold in North America. This fact did not deter the feather hunters who killed all the birds they could find, skinning them and throwing the bodies away. (Better provisioned than the early sailors, these feather hunters found auk meat unpalatable.)

During the early 1800's, a few great auks turned up each winter on the coast of Massachusetts. Probably

(Continued on next page)

they swam down from Funk Island, to which they would return in the spring. In 1832, John J. Audubon, the famous student and painter of birds, visited Newfoundland in the hope of seeing the great auk; but in this he was disappointed. He was told that some of the birds still lived on Funk Island. By 1840 these few were gone, and there was not a single great auk left anywhere in the New World.

Perhaps you are wondering whether this bird fared better in the Old World. Let us see what happened there.

Along the coasts of Europe are found great piles of sea shells, mixed with animal bones, flint spearheads, stone beads, blunted and broken tools of bone, pebbles and other debris. These shell heaps are the refuse piles of ancient people who, thousands of years ago, lived along the European coast. Subsisting primarily on shellfish, the Stone Age Europeans accumulated great heaps of mollusk shells, and onto these heaps they threw their discarded household possessions and bones of the animals they killed. Scientists have investigated these prehistoric garbage dumps and identified the bones found therein. The bones of the great auk are common in the shell heaps, not only in Iceland, Greenland, Norway, Denmark and the British Isles, but also farther south on the coasts of Germany, France and Spain. Evidently the great auk once lived in all these countries, and was hunted by the prehistoric European savages. Perhaps the early hunters contributed to the disappearance of the big bird. At any rate, by historic times it had become very rare except in the northern portion of its range.

In the latter 1600's, a few lonely auks still appeared each year in the Faeroes of the Hebrides, off the coast of Scotland. They would scramble up the barren sea cliffs, lay their single eggs, raise a few chicks, and then depart. By the middle of the 1700's the auks had vanished from this area; and they also disappeared from Greenland where they had once been common. In 1790 an auk was shot off the coast of northern Germany; it was the last one to be reported from the Baltic Sea. Soon, the only great auks left in the Old World were those inhabiting a little islet off the coast of Iceland. This islet was called Geir-fugl-asker, which meant "cliff of the great auk." The story of this island is fantastic, almost unbelievable.

Geir-fugl-asker was barren and rocky. The icy waves dashed upon it, throwing up great sheets of spray. Boats that ventured too close were apt to be smashed on the rocks, or capsized in the tossing, pounding surf. Nevertheless, the hardy Icelanders dared to visit Geir-fugl-asker, lured on by the money they could get for auk meat, eggs and feathers. But each year ten or twelve sailors were drowned in the treacherous waters around the islet; and in addition, the Icelandic churches levied a tax of 75% on the proceeds from auk hunts. Discouraged, the sailors gave up their raids, and for a century the auks of Geir-

fugl-asker were undisturbed. During this time they increased in numbers. Then the Icelanders began raiding the island again. Later, during the early 1800's, warring European nations sent many ships into North Atlantic waters, and some of these stopped at the island to lay in a supply of auk meat and eggs. And so by 1830 the only great auks left on Geir-fugl-asker or anywhere else in the Old World—were a few that had survived these Nineteenth Century raids.

The next chapter of the auk saga is the most amazing of all. On a day in March, 1830, the auks of Geir-fugl-asker felt a trembling in the rocks beneath their feet, then a grinding and a wrenching. The rocks split; sea cliffs collapsed; tons of boulders showered down upon the screaming birds. With a thunderous roar the entire island vanished beneath the waves. Nothing was left on the surface but a few auks, paddling madly away from the awful catastrophe.

For several years thereafter, refugee auks turned up in places where none had been seen for centuries. One, almost starved, appeared off the Irish coast. And yet the great auk had not completely vanished. It seems almost as though Nature had granted it a reprieve at the last moment.

Not far from the lost island of Geir-fugl-asker was another barren chunk of volcanic rock called Eldey. The great auks had not lived on Eldey, for on all sides this island dropped away in vertical sea cliffs which the birds could not scale. But the mighty forces that had drowned Geir-fugl-asker had also crumpled some of Eldey's cliffs, leaving piles of boulders and rubble upon which the auks could climb. Some of the birds, surviving the destruction of Geir-fugl-asker, swam to Eldey and established a small colony there.

The disappearance of Geir-fugl-asker focused attention on the great auk. In Europe, the curio dealers and the wealthy bird collectors suddenly realized that auk skins, bones and eggs had become very valuable. They offered big sums of money for specimens; and so expeditions were outfitted for Eldey, to raid the last auk colony in the Old World. Between 1830 and 1840, the various expeditions brought back from Eldey about 70 auk skins, and 14 eggs. The last raiders to return claimed that no more auks were left on Eldey, or anywhere else. (You will recall that the New World auks had also been killed out by 1840.)

But there was still a demand for auk skins, which were bringing a fantastically high price. A party of Icelanders were persuaded to visit Eldey during the auk's breeding season, to scour the island for any surviving birds. They arrived at Eldey on June 4, 1844. It was a fateful day. There were 14 men in the party, but only three of them had the nerve to leap from the boat to the slippery, surf-pounded rocks. These three carefully searched the island, and found just two auks—a pair—guarding a single egg. One of the men seized the male bird and strangled it. The

second man did likewise to the female bird. The third sailor, having no auks to strangle, picked up the egg, looked at it for a moment, then dropped it. At that instant, when the egg splattered on Eldey's rocks, the great auk became extinct.

You may wonder what part Florida played in this strange story. About 1900, some naturalists found a great heap of sea shells on the beach just north of Ormond, in Volusia County, Florida. Like the Old World shell heaps, it contained bones and other litter, the debris of primitive people. It was, in fact, the refuse pile of Indians who once lived and hunted along the Florida east coast. Digging through the shells, the naturalists were astonished to find bones of the great auk. Scientists were baffled. How did the great auk come to be in Florida, a thousand miles south of its normal range? Someone offered a guess that white sailors had given or traded the birds to the Indians. Someone else recalled that Sebastian Cabot, who had seen so many auks in Canadian waters, later sailed all the way to Florida; perhaps he had brought the auks. This was an interesting speculation, but completely erroneous. Today we know that the Ormond shell heap is more than 2,000 years old. The auk bones, preserved by the lime content of the sea shells, are the "table scraps" of prehistoric Indians. It would seem that, centuries ago, the great auk ranged southward to Florida in the New World, and to Spain in the Old World; but for unknown reasons it fell back to the North Atlantic.

So much for the great auk. There's another chapter of the auk story, however; and this one begins, not in some remote time and place, but right here in Florida, in the year 1932.

During the winter of that year, a duck hunter built a blind and set out some decoys on a backwater of the Halifax Lagoon. By a strange coincidence he was just a few miles from the Ormond shell heap. Three or four ducks had appeared, but they had passed over, flying high, and the man was hopefully watching the skies. Suddenly he saw a flock of birds approaching from the north, flying rather low. As they neared, he saw they were too small for ducks. In size and shape they looked like quail; but quail are not black and white in color, and of course they do not fly over the salt marshes. To the hunter's amazement, the strange little birds began to drop out of the sky, landing in the water with tiny splashes. The man realized that the birds were exhausted, that some of them were actually dying. As he watched, more flocks appeared. Some of the birds passed southward, their stubby wings beating the air in labored fashion; others dropped into the water. One of the birds, nearly helpless, was cast up on the beach, and the hunter caught it. He had never seen anything like it. It was about 8 inches long, round and fat, black above and white below, with a head and bill like a quail. Its legs were small, and set far back; the tiny toes were webbed.



Modern Floridians may encounter the little Auk or Dovekie.

The mysterious visitor was the so-called "little auk" or dovekie, a relative of the great auk. The dovekie, too, is a bird of the North Atlantic. Like the extinct great auk, the dovekie lays its single egg on the barren, rocky islands of the far north. But unlike its giant relative, the dovekie has not lost the power of flight. In 1932, for unknown reasons, dovekies flew southward to Florida. They turned up at scattered points along the Florida east coast, all the way from St. Augustine in the north to Long Key in the south. In 1936 these tiny auks came to Florida again, appearing by the thousands on the waters of Jupiter Inlet. Still more came in 1939, and some of them reached the Florida Gulf Coast. In 1950 one was found at Palm Beach, and in 1951 a flock was seen far out at For Jefferson, beyond Key West.

Apparently most Florida sportsmen do not know the dovekie. Several hunters have written to the Reptile Institute about these birds, or brought specimens to be identified. There is no problem of identification if these distinguishing characters are kept in mind: (1) size and shape like a quail; (2) small bill; (3) black and white coloration; (4) toes webbed; (5) salt-water habitat. No other Florida bird answers this description.

The dovekies have since continued to visit Florida in the winter. Next hunting season you may encounter these little auks, the smallest of our sea birds. If so, you might wish to think for a moment about the remarkable story of the auks. Reflect that, without adequate game laws and conservation measures, many other of our birds and animals would soon follow the great auk into oblivion. ●

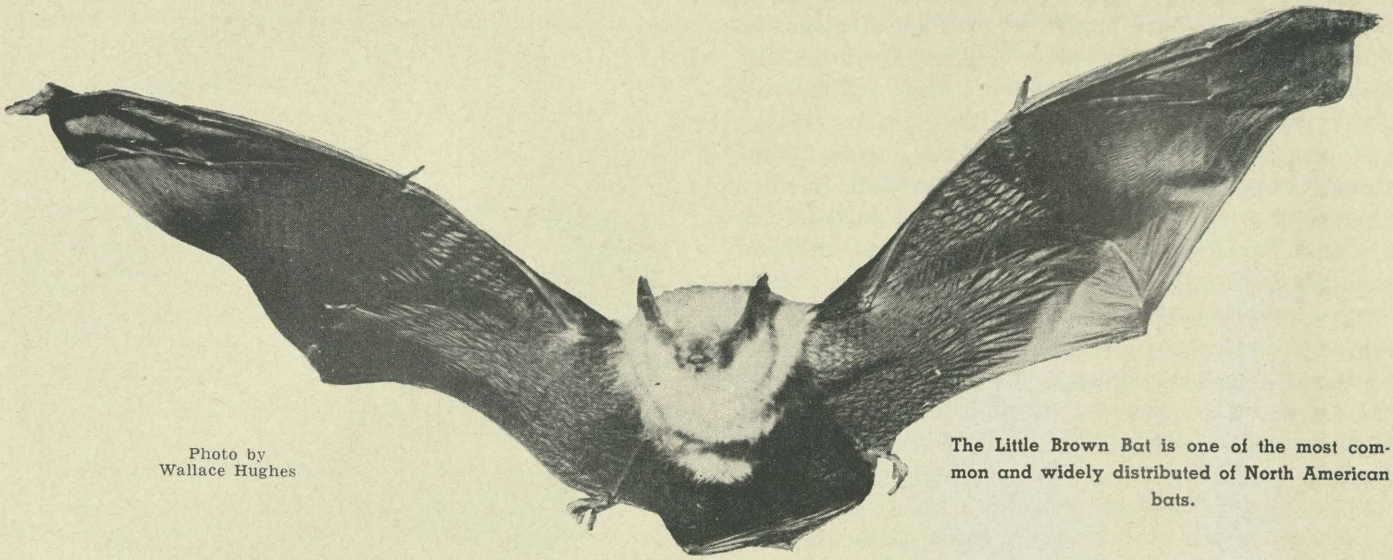


Photo by
Wallace Hughes

The Little Brown Bat is one of the most common and widely distributed of North American bats.

THE NIGHT FLYERS

By MARY LOU NORWOOD

THE ASSOCIATION OF BATS with things dark, evil and occult is not hard to understand. Consider people of less sophisticated ages faced with an animal that flew only at night, slept hanging by its heels, and inhabited caves, deserted buildings and other "spooky" places. In addition it darted helter-skelter through the dark night missing obstacles in spite of poor eye-sight, looked like a mouse with wings, and possessed a fierce expression backed up with well developed teeth and a variety of grotesque ear sizes and shapes. As a matter of fact, people of our own era, sophisticated as we believe ourselves to be, are not above a shudder when it comes to bats.

Because of its habits chances are that you can count the number of times you've seen a bat on the fingers of one hand. Like most things that are unfamiliar, the bat is surrounded by a vast number of superstitions, mostly of the terrifying variety. The Chinese, however, regard the bat as a symbol of good luck. The thing about the bat that sets it apart from other animals as far as the biologist is concerned is its gift of flight. It is the only mammal possessing true flight. The little flying squirrel is capable of "flying" considerable distances by gliding, but the bat alone can fly like a bird—with flapping flight.

The price the bat paid for flight is a great one. Most birds and insects that fly are also able to walk, but the poor bat, because its knees bend backwards, is

most helpless on the ground. Young that fall from the roost are deserted by their mothers who are unable to maneuver on the ground and help the young back to the roost. Flight, however, is necessary to the bat because of its diet of flying nocturnal insects.

A bat's wings are its forelegs with profound adaptations, for flying. The struts of the wings are fingers, only one of which resembles the normal finger by having a nail. This one is the thumb and is the claw by which the bat is able to climb about and cling. As with birds, those bats having long narrow wings are the more graceful flyers while those with short stubby wings fly with irregular and capricious changes of direction.

Only after the invention of radar did man fully appreciate the delicate system by which the bat darts wildly but safely through the night. During the early Renaissance a scientist discovered that blinded bats were still able to dodge obstacles in their paths but the explanation came centuries later. The bat emits noises that bounce off objects and by this echo the bat is able to determine location, size, and shape of obstacles.

Recent studies of this phenomenon show that bat actually makes four distinct kinds of sounds, three of which can be heard by man. This first is a shrill cry, the second a buzz that can be heard only by a close observer, the third is a very rapid and hardly percep-

tible click, and the fourth is the supersonic cry which humans cannot hear. While at rest the bat gives out 5 to 10 of these supersounds a second. In flight they increase to 20 or 30 a second, and as the animal nears an obstacle the frequency of the cries may increase to as many as 60 per second. The buzzing and clicking sounds always accompany the supersonic cries.

Bats' ears are unusually large for so small an animal and right in the middle of the ear is the tragus—a very sensitive organ like a radio antennae—by which the bat receives the echoes of its sounds. One further marvel aids this reception. At the precise moment that the sound is emitted through the mouth, a minute ear muscle puts the ear out of action so that the bat cannot mistake the original sound for its echo.

Although an uncommon sight to most Floridians, bats in Florida are anything but rare. Of the 13 species in the state, six are considered abundant. Two are common, three rare and the last two very rare. All of these bats except one live on insects and are very beneficial to man. The one that doesn't eat fruits and so far has been found only around Key West and there very rarely.

Recently the possibility of bats being carrier or acting as reservoirs of infection for rabies has been recognized. Since 1953 the State Board of Health has been engaged in a study of this possibility. Bill Jennings, formerly a biologist with the Game and Fresh Water Fish Commission, is conducting the project. Although it is still too early to draw conclusions, the study has revealed valuable information.

While the percentage of diseased bats out of the total number examined does not indicate anything approaching an epidemic, if the same percentage of infection existed in raccoons or foxes most biologists would consider it an epidemic rate. The important question to the biologists is whether or not the bat populations is the origin of rabies outbreaks in raccoon and fox populations. In cases where the diseased bat becomes partially disabled, it would be easy prey for animals such as the raccoon and fox and could infect its attacker by biting.

Jennings says he has shot rabid bats, seemingly normal in every way, feeding along with undiseased individuals. Rabies work in Trinidad revealed that bats live much longer after becoming infected with rabies than any other mammal. Bill's advice to sportsmen is to report animal bites to health authorities for investigation, never handle wild animals that are sick or unafraid of man, and (as every wise sportsman knows) immunize dogs against rabies.

Most Florida bats mate in the fall of the year but fertilization of the ovum does not occur until spring. The sperm remain alive in the uterus of the female until ovulation takes place months later. The young are born from late May through June and among most Florida colony bats, the producing females congregate in a maternity center during this time, rejoining the

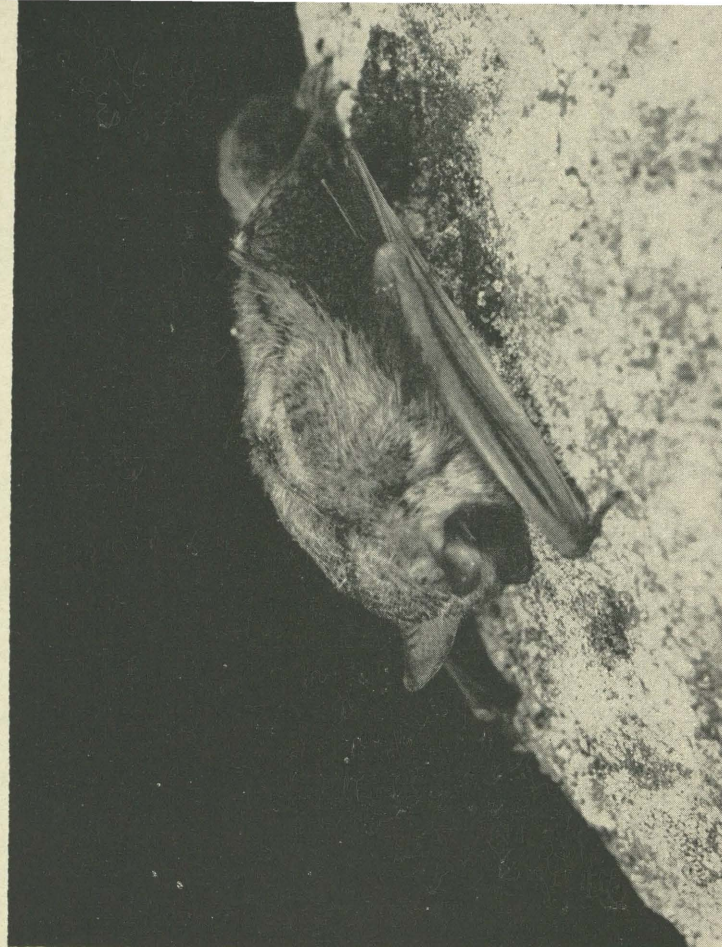


Photo by W. Hughes

During the daylight hours, bats rest in caves, hollow trees, old buildings or other convenient retreat. At rest, bats hang head down.

colony towards fall when the young are fully able to fend for themselves.

Eastern Pipistrelle

(*Pipistrellus subflavus*)

This is the smallest of all North American bats and is found abundantly in Florida north of a line from Melbourne on the east coast to Punta Gorda on the west. Only 2½ to 3½ inches long, the tiny Pipistrelle has a wingspread of about 5 ¾ inches. It weighs only 1/8 to 1/4 ounce, weighing the most in late fall just before hibernation. The annual litter of 1 to 3 (usually 2) is born in late May and the babies cling to the mother for a few days before she leaves them hanging in their roost while she hunts. The young can fly when they are less than three weeks old.

Pipistrelles begin to fly about dusk. They fly for a while, rest, and then fly again before dawn. Because of their short, wide wings their flight is weak and erratic. During the summertime they abandon their winter cave quarters and roost during the daytime in heavily shaded woods, open barns, etc. During the wintertime when they hibernate in caves they hang in clusters of 50 or less with other kinds of bats.

(Continued on next page)

(Continued from preceding page)

While hibernating they are very sound sleepers and do not stir as some other bats do. Pipistrelles have been known to live for six or more years.

Little Brown Bat

(*Myotis austroriparius*)

Next to the little Pipistrelle in size, the Little Brown Bat is the commonest and most widely distributed bat in North America. It is found throughout Florida and classified as abundant. This little fellow grows to 3½ to 4½ inches in length and his weight varies from 1/7 to 1/3 of an ounce, being heavier in late fall. Usually only one offspring is born to the Little Brown female and it weighs the infinitesimal amount of 1½ grams (about 1/30 of an ounce). In nine days it tips the scales at a robust 5 grams. The young are nursed for about three weeks and a few days after that they can fly.

Like the Pipistrelles the Little Brown Bats are most active during the hours after sunset and the hour before sunrise. Their flight is erratic and insects are both caught and eaten on the wing. In the summertime the females and young congregate in maternity centers while the males roost singly or severally. In wintertime they prefer caves and hang in clusters and patches, but not in great masses. The Little Brown Bats leave a musky odor and greasy spots where they roost. A few banded individuals have lived for over ten years.

Evening Bat

(*Nycticeius humeralis*)

The wingspread of the Evening Bat (9 inches) and the small body (3.7 inches) makes it an excellent flyer. Its flight is slow and steady compared to the Pipistrelles and Little Brown Bats. It will travel quite high, swooping down to feed on the low flying insects. Two youngsters are born in late May and the mother does not carry them with her. The Evening Bat is a bat of the woodlands throughout Florida. It is a common bat in the south and is considered abundant in Florida.

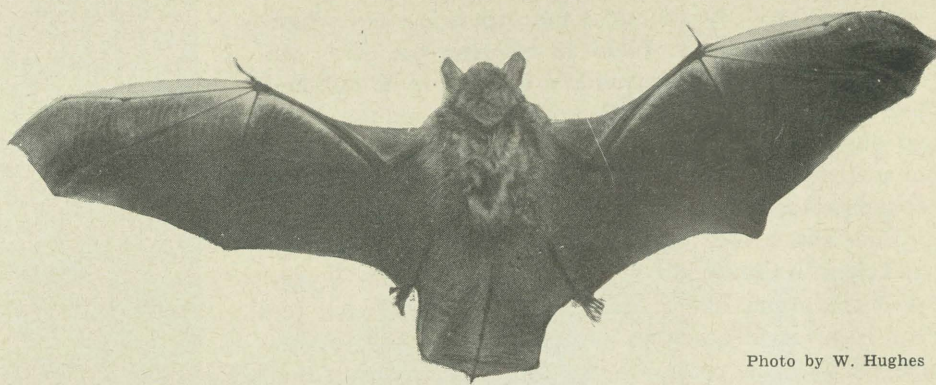


Photo by W. Hughes

As with birds, those bats having long narrow wings are the more graceful flyers while those with short stubby wings fly with irregular and capricious changes of direction.

Red Bat

(*Lasiurus borealis*)

If you want to consider any bat as handsome, this is the one to pick. Its fur is soft and fluffy compared to the greasy Little Brown Bat. Its ears are also not so large and grotesque. The reddish color of these bats can be noticed because they fly earlier in the evenings, sometimes when it is still quite light. The Red Bat is 4.4 inches long and has a fine wingspread of 11 inches. If dark caves are available it will retire there in the daytime in huge numbers but caves are not frequent within its Florida range (northwest Florida and south on the peninsula to about Gainesville). This bat seems to migrate somewhat with the seasons, moving north in April and May and south in October and November. Except for size, color, and range, its habits are like those of the Florida Red Bat.

Florida Red Bat

(*Lasiurus seminolus*)

Slightly smaller and darker than the Red Bat, the Florida Red is found throughout the state and is considered abundant. It is a non-hibernating tree bat and is usually found in or near woodlands. During the day they hang from vegetation, frequently within reach of the ground. Although they roost singly, they are gregarious and several will sleep in the same clump of foliage.

From late May to mid-June two or three young are born to the females. The mother carries her young with her until their combined weight

often exceeds hers (1/3 to 1/2 an ounce). Both Red Bats have long narrow wings and fly quite high to descend towards the earth in spirals. They are also one of the few bats that will alight to pick insects off leaves.

BIG BROWN BAT

(*Eptesueus fuscus*)

This is the last bat to make an appearance in the evening and is the largest of the abundant Florida bats. It is found only in the Tampa Bay Area. The Big Brown is 4½ to 5 inches long with a wingspread of 11 or 12 inches. When very fat it may weight slightly more than an ounce, the only common Florida bat that exceeds an ounce in weight at any time. Usually it weighs between ½ and ¾ of an ounce. This bat is more socially inclined towards man and frequently enters houses, churches, and other buildings to the dismay of the human tenants. One of its audible cries sounds like escaping steam and it seems to make a body vibration noise when at rest.

May is the birth month and the litter size is commonly two. The young are born naked with eyes shut and weight about 1/10 of an ounce. Weaning takes place when the young are three weeks old and they attain adult size in about 2 months. Some banded Big Brown Bats have lived at least nine years.

FLORIDA FREE-TAILED BAT

(*Tadarida cynocephala*)

The wing membrane of other Florida bats extends past their hind

**With built-in radar and
zooming aerial techniques, the bat
is the only mammal possessing
the powers of true flight.**

legs to the tail, but this fellow's tail is free and sometimes as long as 2½ inches—almost the length of his body. The Florida Free-Tailed is kin to the bat that inhabits Carlsbad Caverns in such astounding numbers. These are also the most rapid flyers of all North American bats and usually fly all night long. Colonies of immense size are not unusual and they will use houses, stables, barns, and even business establishments for roosts. Like the Little Brown Bat, the Free-Tailed Bat has a distinctive odor which is rather offensive to human noses.

The Free-Tailed Bat is one of the few Florida bats that breeds in the spring during the ovulation period of the female. Single births occur from late May to late June and the young clamber straight from the birth canal to their mothers' breasts. The young are not carried on flights but are left at the roosting site. Because of the great numbers of bats that gather together in colonies, the Free-Tailed is about the only bat that has economic possibilities outside of insect control. Bat droppings or guano, make a very rich fertilizer and the accumulations under permanent roosts have been gathered in marketable quantities in several states. This is a common bat through the state.

FLORIDA YELLOW BAT
(*Dasypterus floridanus*)

A large bat (5.6 inches with a 16 inch wingspread), the Florida Yellow Bat is found throughout the state. The wings have a thick membrane and are quite strong. It flies high and the flight is characterized by seemingly being purposeful and direct compared to the erratic and

flitting traits of other bats. Although this is considered a common bat in Florida, very little specific information is available. They are not house or cave bats and litters are usually composed of two or three young.

GRAY BAT
(*Myotis grisescens*)

Though classified as a rare bat in Florida, the Gray Bat inhabits the caves in the Marianna region in considerable numbers. This is the only place in the state that the species occurs. It is a true cave bat and is seldom found far from its winter quarters. The young are born in late May and there is a remarkable separation of sexes during the brooding period. Helpless for several days after birth, the young are carried during this time by the mother and then left to cling to the cave ceiling and walls while she hunts insects. Many of the young lose their grips and fall to the floor to perish. Scores of young may be seen under large roosts during early summer. When 3 weeks old the youngsters can provide for themselves. At birth the babies weigh about a third as much as the mother.

LUMP-NOSED BAT
(*Corynorhinus macrotis*)

The Lump-Nosed Bat has huge ears and a decided hump on his nose. The ears are noticed first, however, for they are about half as long as the whole bat. When they sleep or hibernate the Lump-Nosed coil their ears backward in a close spiral and lay them flat against their backs.

Their ability to hover with very slow wingbeats marks this bat's flight. They do not leave their roosts

(caves, mineshafts, hollow trees, etc.) until well after dark and are not easily observed. The young can fly in 2½ or 3 weeks, but they do not join their elders in the night flight until they are 6 weeks old. Youngsters nurse until almost 2 months old although they begin to eat other food well before then. Those big ears become erect when the little bats are about a week old. This is a rare bat in Florida but occurs sporadically throughout the entire state.

HOARY BAT
(*Lasiurus cinereus*)

This is a migratory tree bat occurring in Florida rarely through the northwest panhandle and down the peninsula as far south as Ocala. For a bat it is pretty large, growing to 5½ inches in length and 15 to 16 in wingspread. It weighs up to an ounce and a half. This bat also has a direct flight pattern and generally seems a strong flyer. It is believed to eat the larger flying insects, but doesn't pass up a juicy mosquito.

LEAF-NOSED FRUIT BAT
(*Artibeus jamaicensis*)

The only non-insectivorous bat in Florida and the only one of the Leaf-Nosed family, this is a small (2.75 inches) member of the night flying clan. It is a rare straggler to our southernmost coast and these specimens probably crossed from Cuba. This particular bat feeds on fruit but its more infamous leaf-nosed relative is the blood-sucking Vampire Bat of Central and South America where the leaf-nosed family is more abundant. It is usually a cave dweller but being denied this habitat where it occurs in Florida, it spends the day in tree foliage.

MASTIFF BAT
(*Eumops glaucinus*)

The largest (almost 6 inches) and the rarest bat (only one recorded), the Mastiff is another free-tailed bat. It is however, not unusual in Cuba and the distance would not be too far for this bat or the Leaf-Nosed Bat to fly. The one recorded specimen of the species was captured near Miami. ●

FOOTFALLS IN THE FOREST

By ARCHIBALD RUTLEDGE

A MAN'S SUCCESS as a hunter is often due to his ability to detect the approach of game and to be certain of its identity before he sees it. Of course, all of us can be fooled; and I might begin this business by telling you what a mistake I made last season. To begin with, it is now about fifty years, since I first hunted the wild turkey and studied him, not in a laboratory, but in his native wilds.

While still-hunting one winter afternoon I had taken up my position in a swamp about two hundred yards from the river that winds through my South Carolina plantation. The woods were still; the air was balmy; there were signs of turkey scratching — all looked hopeful. But after a while I heard, from the direction of the river, a low, clear whistle. I was peeved. Some of the boys must be slipping in on me.

I have never had any trouble with poachers, for I know them all, and two or three times a year I give them a big deer hunt. Then they don't poach on me, and they will not let anyone else do it, either. But certainly that whistle came from a man. It was repeated, and I stood up slowly to locate the intruder. I sat down fast. A flock of twelve wild turkeys was coming my way, not much over a hundred yards off, and one of them was whistling!

As the gobbler came nearer I detected the difference between his wild, flutelike note and that of a man. But this was the first time I had ever heard a wild turkey give that note. Since the great birds did not come near enough for a shot, I just enjoyed watching them feed, and finally they faded into the great river-swamp.

The approach of a single wild turkey can often be told by the way it walks. If it happens to be calling as it approaches, even the amateur ought to be able to identify it; but if it is voiceless, and the condition of the leaves on the ground is favorable for hearing it coming, it will sound just like a man. It sounds just like a wary hunter stealing along. Among birds, the wild turkey can certainly be classified as big game.

At certain seasons several old gobblers will often

Train your ear to recognize the
many sounds emitted by the game
you seek. Less moving and more
listening can mean success afield.

consort together. I have seen as many as nine in one band! This was in the winter, and at that time they are as silent as monks at a frolic. I have detected the approach of such a flock partly by hearing the steps of individuals, and also by hearing very low subdued notes, curiously hard to imitate and unlike anything else in the world.

The silence of such a flock of old toms is in great contrast with the noise made by an ordinary flock of wild turkeys consisting, for example, of an old hen and her grown brood. I have heard such a flock several hundred yards away if the woods were still. They do a lot of talking, and they make a lot of noise raking the leaves.

For a hunter to creep up to such a flock is well-nigh impossible; but if he has the direction in which the birds are feeding, if he knows his country, and if he can utterly efface himself and creep without a sound, he may get ahead of them. I have done it several times; but just as often I have failed. It is just as well that we often fail to kill game. What we do not get today will be there for us tomorrow.

Weather conditions and conditions underfoot have everything to do with the accurate detection of the presence of game by sound. On a windy day you will hear little or nothing, and what you do hear is but a part of so many confused sounds that you can rarely be certain of what is near you. For my part, I should just as soon stay at home as hunt in the woods when the wind is high.

In still-hunting in hilly country, a man is especially called upon to use his ears intelligently. Else how is he to tell what is making that noise just on the other side of the crest of the ridge? If you hear steps (in reality, jumps) which sound like a man's, yet hear them interrupted by little scurrying sounds in the leaves, the chances are that it is a gray squirrel. If you hear an almost continuous rustling of the leaves, likely with intervals of complete silence, it may be a deer coming your way.

I do not think it is often possible to hear distinctly the separate footfalls of a deer. His four feet are likely to confuse the sound. And always remember that the wild deer can walk almost as quietly as a grouse; and that, except for an occasional bleat of doe or fawn,

the deer is a silent creature—unless one happens to give a snort or whistle of alarm. This is one of the most startling sounds in the woods; and usually it is bad news for the hunter. It generally means that the deer has winded him.

It is not possible to say exactly how far away a deer can wind a man. I have heard it said that, when all conditions are favorable, a deer can detect by scent the presence of a man a full mile away. He might, indeed, at that distance, have wafted to him some stray odor of his enemy, but certainly not enough to alarm him. However, I have had a buck wind me when three hundred yards away, give a wild disgusted whistle, and make off at full speed in the opposite direction.

Only recently, while walking an old road through the wilderness on a very windy day, I passed within a hundred yards of a buck lying down. I was not hunting. I saw him lying on the ground, and I thought I would test this theory of a deer's ability to scent a man. The wind was making so much racket that the sound of my own footfalls was drowned.

This buck had his head laid against his flank. He was certainly drowsing; he may have been asleep. I know that he neither saw nor heard me. What I wanted to discover was whether, as soon as I got to windward of him, he would know it. And I should say that conditions were not favorable for scenting. The woods were rather dry, and the wind was stormy and veering. Old-timers, the second I got between that buck and the point of the compass from which the wind was coming, he left his bed like a rocket. This was, I thought, pretty good evidence of a deer's keenness of scent.

As has been intimated, the deer's whistling snort usually does the hunter a lot of no good. It is a signal that the beast is alarmed, and generally the signal also that he has high-tailed it unto parts unknown.

It would be supposed that an old buck, being so much larger and burlier than a doe or a yearling, would

always make more noise than the latter in getting up. The reverse is usually true. If you start a deer, and he breaks the brush in tremendous fashion, that is no proof of his size or his sex. Of course, when fully alarmed and in hard flight, a buck can make plenty of racket; but he has a habit of easing himself from his bed. Whenever a deer gets up near me with hardly a sound, I am almost sure it is a buck.

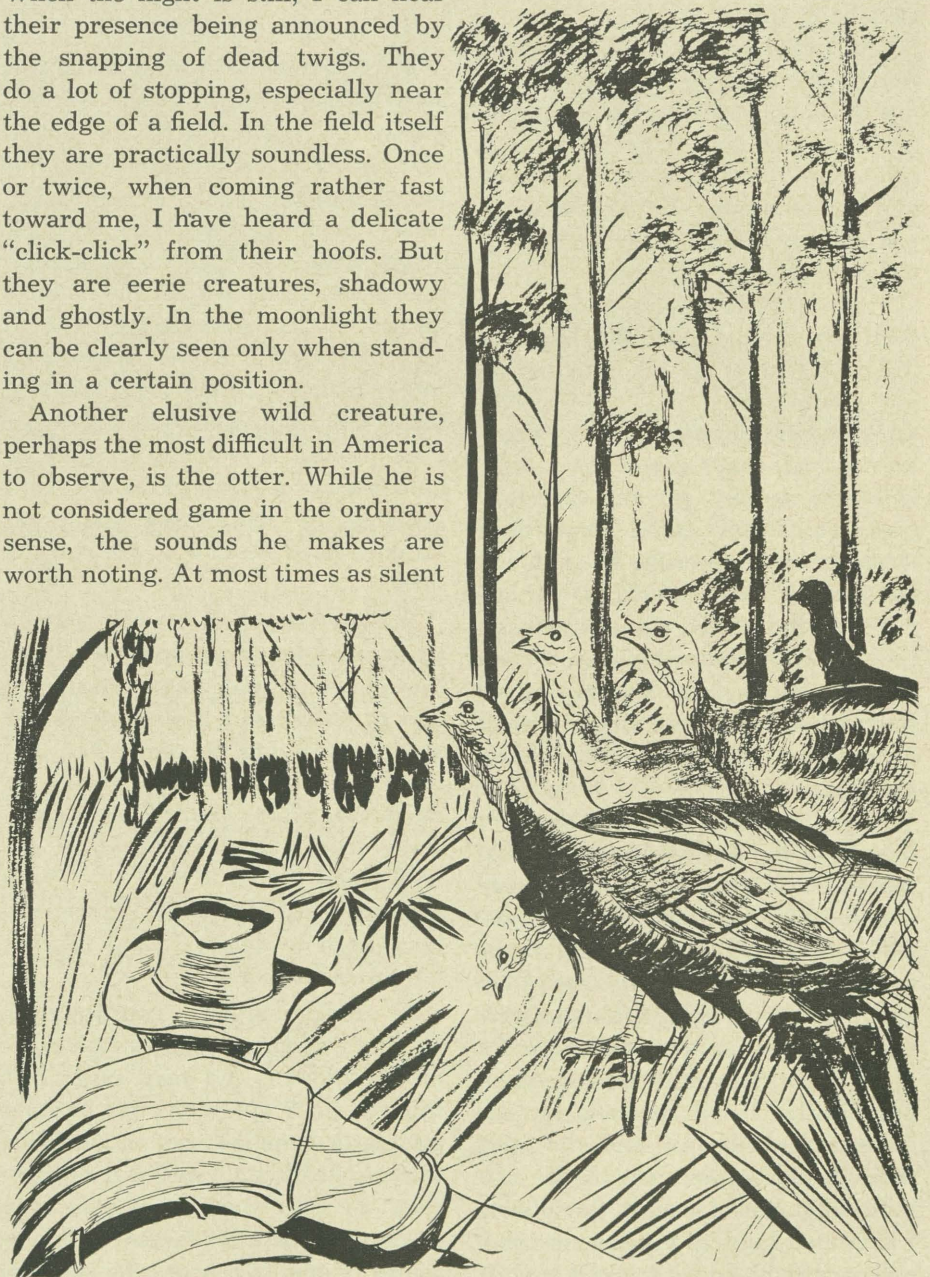
I have photographed deer from trees at night, and at such times they often come within thirty feet of me. Say I am in a big live-oak in a peafield, and they are coming out of the woods to eat up all my peas. When the night is still, I can hear their presence being announced by the snapping of dead twigs. They do a lot of stopping, especially near the edge of a field. In the field itself they are practically soundless. Once or twice, when coming rather fast toward me, I have heard a delicate "click-click" from their hoofs. But they are eerie creatures, shadowy and ghostly. In the moonlight they can be clearly seen only when standing in a certain position.

Another elusive wild creature, perhaps the most difficult in America to observe, is the otter. While he is not considered game in the ordinary sense, the sounds he makes are worth noting. At most times as silent

as the stream itself in which he lives, the otter can be noisy. He is essentially a playful animal. Once or twice I have come on a whole family sliding down a long, muddy bank. The noise they made was the splashing when each one would hit the water. Traveling through a swamp or overland, the otter makes only a kind of slithering sound. I do not believe many people have heard the voice of the otter.

When coming down the river late one night, I ran into an old mother with her four half-grown young. By the aid of a flashlight I saw them all distinctly, so that there was no

(Continued on next page)



(Continued from preceding page)

doubt of the creatures that made the curious sounds I heard. The mother dived, at the same time calling to her babies to do likewise. They did; but they came up near the riverbank on my side of the stream. The mother went underwater clear across the river. Then she crawled out in the marsh on the farther side and proceeded to give what I should describe as little foxlike barks, at the same time slapping her tail on the mud, exactly as a beaver slaps his on the water. Whether the otter did this as a kind of supplementary warning, or whether it was due to her excitement and worry, I could not tell. But the sounds were unmistakably distinct.

Her babies soon got the big idea which had been radioed across the tide. Slipping craftily down the bank that they had started to climb, they disappeared under the water. About four minutes later the mother stopped calling, but I heard her talking to her recovered infants.

There are some sounds in nature that are highly ventriloquistic; at least their effect is such, whether or not their purpose is to deceive. Such is the hooting of the great horned owl, that tiger of the woods. One can usually get the direction from which this sound comes, but it is almost impossible to tell the distance. I have found the drumming of the ruffed grouse to have this same deceptive quality. When listening to sounds and trying to judge their distance, account must always be taken of atmospheric conditions.

From my back door to the main branch of the Santee River, the distance is a mile. Between the house and the big river lie old rice-fields. Both river and fields attract thousands of wild ducks. Sometimes they sound as if they were within gunshot. Often I have had their clamor wake me at night. Again, I can hear them but faintly. It all depends on the dampness of the air and the stillness, though a little wet breeze is a good conductor of sounds. Sometimes I have had hunters visiting me who, on hearing the ducks, wanted to start

right out; some even got ready to shoot. And they would not believe me when I told them that the ducks were a mile or more away.

A duck hunter should be able to identify the different kinds of wild ducks by their cries as well as by their appearance, and in many cases their cries are very different. The mallard and the black duck do practically all that quacking. Bluebills are rather silent, though they sometimes give curious little grunting sounds. The wood duck's cry is shrill and peculiar; that of the teal is an eerie whistle. I should say that teal are among the noisiest of ducks; I have heard vast flocks of them whistling the entire day, without a single let-up.

The wise sportsman will be on the alert against being fooled by imitators of game birds. On more than one occasion, while returning empty-handed and consequently weary from a quail hunt, I have heard birds calling. As I got nearer the place from which the calling came I got embarrassingly close to a farmer's yard. I then discovered that starlings, admirable mimics, were imitating bob-whites. I have even heard a starling imitate a guinea-hen. The mockingbird also imitates the call of the quail, but he does not reiterate as the starling does.

While we speak of the noises made by game, upon the proper identification of which may depend our success or failure as a hunter, we ought at the same time to remember that there are certain sounds which we make that alarm game. This is especially true of the human voice. No wild thing seems to like it. I have observed that ducks and geese are very keen to detect it and to veer far away from it.

In duck marshes, you may be paddling along noiselessly and completely hidden, and may say something to your guide or your hunting pal, in a tone not much above a whisper. Although well out of gunshot, all your ducks will rise in a panic. Neither do ducks like any sound related to a boat: the careless

rap of a paddle, the scraping of an anchor chain. They appear to associate a boat with man.

Sometimes in the woods I hear hunters calling to one another. They ought to have some less revealing method of signalling than by voice. A whistle is good. The minute you begin to shout, you may find your friends, but you will give wild game the scare of its life. Perhaps a curious exception of this rule is the white-tailed deer. My Negro drivers go through the woods shouting like Gabriel's trumpet, and often they walk within thirty yards of a buck.

I believe game is usually more afraid of surreptitious noises indicating a stealthy approach. Singularly, not all game identifies the sound of a gun. The wild turkey is an example. If more than one bird happens to be within range, and you shoot one down from perfect concealment, the others may neither run nor fly. They will likely "put-put" a little, standing very slim and straight, asking one another, "What tree was that which just fell?" Of course, if you show yourself, those big birds will put on the greatest vanishing act known to nature.

None of us, I suppose, will ever go much beyond the kindergarten in identifying the makers of all the sounds of nature; but we should constantly be improving our knowledge, so that we will not mistake the deep guttural grunting of a great blue heron for the call of distant moose, the cry of the bluejay for that of the red-tailed hawk, the rolling drum of a woodpecker for the gobble of a wild turkey. The sound of their footfalls, the sound of their wings, their cries and calls — these are really distinct if you will study them. The quail and the dove, the woodcock and the Wilson's snipe — all have a different wing-beat that gives out a different sound. And a part of the enjoyment of our ancient heritage of the wilds comes from our recognizing instantly the whistling of the white-tailed buck, the roar of the bull alligator, the drumming of the ruffed grouse, the bugling of the elk. ●

FLORIDA BIRDLIFE—Marsh Hawk and Kite Family



Marsh Hawk, *Circus cyaneus*.

Easily identified on the wing by the conspicuous white rump patch, the marsh hawk is a common bird of the more open fields and marshes throughout the state. The long wings and elongated tail combined with the rather owl-like facial disks are good identification characteristics.

The adult male, with his black wing tips and pale gray body coloration gives a rather gull-like impression at first glance. The adult female and the young of the year are brownish in color.

In Florida, the year around population is augmented by the arrival of migratory individuals during the fall months.

The food is composed primarily of small mammals such as meadow mice and cotton rats. Frogs, insects, fish, crayfish, and snakes also are taken as the opportunity arises.

Mississippi Kite, *Ictinia mississippiensis*.

The pale gray head and underparts and the blackish tail are identification marks of the adults of this species. Young Mississippi kites are streaked with brown, heavily on the breast and less conspicuously so about the head.

Very active aerial performers, they are often observed making spectacular swoops from great heights. They are capable of hanging nearly motionless on outstretched wings.

The food of this species is composed completely of various insects, especially the larger forms such as grasshoppers and dragonflies.

The bird is a rather uncommon summer resident in the northern part of the state and is occasionally sighted during the winter in the central and southern portions.

White-tailed Kite, *Elanus leucurus*.

The white plumage with conspicuous black patches at the bend of the wings make the adults of this species readily identified. The young birds are brownish with darker streaks on the upper breast and back of the head and white on the lower underparts and tail.

The bird is a rare resident in the peninsular portion of Florida. Marshes and the open grass lands are the preferred habitat. Small mammals, especially meadow mice, are staple items of their diet.

Swallow-tailed Kite, *Elanoides forficatus*.

The contrasting black and white color pattern and the long, deeply forked tail are trademarks of this kite. They are wonderfully skillful aerialists, soaring and swooping without apparent effort.

(Continued on page 38)

AROUND



Photo by Ralph Voss

Game and Fresh Water Fish Commission Wildlife Officers giving out poles and worms at the July 3rd Bartow Fishathon. Hack Lake, site of the fishing contest, is one of the lakes in the area renovated by Commission fisheries specialists.

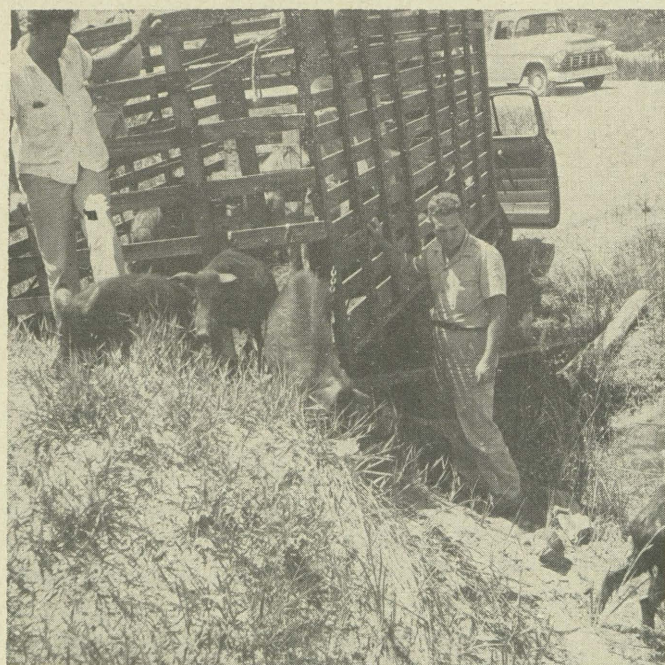


Photo by Fred Sturges

Project leader, Lou Gainey, right, checks the unloading of wild hogs on the Corbett Management Area. Hogs are considered legal game on the Corbett, Eglin and Everglades Areas during the regular hunting season. The Wildlife League of Palm Beach County helped finance the purchase of part of the 148 wild hogs released during July.



Photo by Jim Reed

The Game and Fresh Water Fish Commission gave a testimonial dinner on June 21 in honor of Mrs. Alice Burr. The affair marked Mrs. Burr's retirement after 30 years of state service, 20 years of which were with the Game and Fresh Water Fish Commission. The dinner was attended by a group of over 100 persons, including past commissioners, past directors, and retired and active personnel of the Commission. The honoree was presented with numerous gifts during the banquet held at the Cypress Room of the Cherokee Hotel in Tallahassee. Among those attending the testimonial were included, left to right, A. D. "Bob" Aldrich, Commission Director; Forace F. Holland, Panama City, present Chairman of the Commission; Mrs. Burr; and Dr. O. E. Frye, Jr., the Commission's Assistant Director.

THE STATE



Photo by M. Naggiar

One in Ten Thousand. In the Eglin Air Force Base deer herd, estimated to number ten thousand animals at the present time, is this unusual white buck. Lacking the pink eyes of a true albino, the buck is completely white except for a sprinkling of brownish hair on the head. The deer's antlers were in velvet at the time the photo was taken in July.



LIVING OFF THE COUNTRY, by Bradford Angier. 241 pages, illustrated with line drawings. Published by The Stackpole Company, Harrisburg, Pennsylvania. Price \$5.00.

Few ever consider the possibility that, in this age of push button living, chance occasionally throws people into situations where they must depend upon their own ingenuity and the raw materials provided in order to survive. Author Angier puts it thusly; "Anyone at any time can suddenly find himself dependent on his own resources for survival. It costs very little time, money, and effort to be ready for such an emergency. If you are not ready, it may cost your life."

You may become lost or stranded in the woods. Thousands among North America's more than 30 million annually licensed fishermen and hunters do each year, many fatally. Yet almost invariably where such individuals suffer and all too often succumb so needlessly, wild food is free for the picking, meat for the taking, fire for the lighting, clothes for the making, and shelter for the satisfaction of building.

You may be in an automobile that is stalled by mishap or storm in an unsettled area, a not uncommon occurrence that frequently results in unnecessary hardship and tragedy. Perhaps you'll be a passenger in an aircraft that has to make a forced landing. Perhaps you'll be shipwrecked.

It may even happen that you and yours will be compelled to seek sanctuary in the wilderness because of those ever increasing threats to civilization itself—an atom bomb catastrophe or the even more terrible microscopic foes of germ warfare.

But even though you may never

have to draw upon the emergency measures described in this book, it is a satisfying form of insurance to recognize that the necessities of life are everywhere in the out of doors if you know where and how to look.

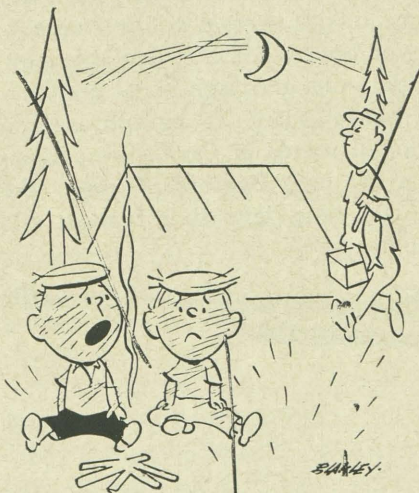
LIVING OFF THE COUNTRY is actually an emergency kit in itself, of interest and value to every camper, hunter or fisherman on that trip into the woods, and to be considered a survival text in Civilian Defense.

* * *

GREATEST FISHING by Joe Brooks. 228 pages, illustrated with photographs. published by The Stackpole Company, Harrisburg, Pennsylvania. Price \$5.00.

In his latest book, expert angler and top-notch outdoor writer Joe Brooks leads the reader to some of the fabulous fishing spots in the world.

His life is a series of major trips followed by sterling accounts of the situations and incidents encountered.



"Well, it's home tomorrow and back to the old washrag."

GREATEST FISHING not only divulges the location of superlative spots and pertinent information relative to accommodations, but intermingled throughout is a wealth of applicable fishing know-how.

One wonderful excursion after another passes in review as opportunities are divulged to the ardent angler.

Beach, reef and ocean fishing in Bermuda produces endless variety including bonefish, mackerel, wahoo and many unexpected catches. Robert Louis Stevenson's "Treasure Island," the Isle of Pines, Cuba, provide the ultimate in fishing for the speed demon bonefish. The word "Panama" means "waters of many fishes" and Joe found that name fitted those fish-filled waters on the Atlantic side of the isthmus.

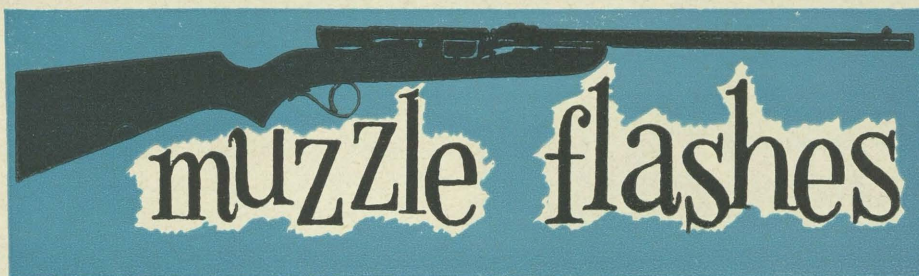
Then on to the land of the Northern Lights and the beautiful grayling from the Yukon, to mountains, lakes and streams of Montana.

In the estimation of some anglers, Atlantic salmon provide the ultimate in angling thrills and finesse. One of the famous spots for **Salar** is the foot of the falls of the Humber River, Newfoundland. Brook trout fishing too, in this youngest Canadian province is spectacular, for when brook trout goes to sea and then returns to his native waters, he is fat, sassy and full of fight.

Argentine fishing has been a revelation. It was at a "boca," the point where a river flows out of a lake, where Joe Brooks hooked, fought and landed the largest brown trout ever taken by a fly fisherman—18½ pounds is a lot of trout! But Argentine also boasts magnificent rainbow trout and land-locked salmon fishing.

Great light tackle sport is to be had around the Bahamas. Fishing for snook in the awesome half-world of the vast Everglades swamps of Florida is like angling out of this world. The Florida Keys too, present great opportunities for the angler and they are within easy striking distance of the home of this restless angler.

(Continued on page 42)



muzzle flashes

BY EDMUND McLAURIN

WHEN WAR COMES to a nation, product production and research are stepped up markedly, but despite increased manufactures there are generally shortages in civilian consumed product categories.

Such was the story here in the United States during the early 1940's, when sporting firearms production was either brought to a standstill by war-time priorities of Government contracts given leading manufacturers, or radically curtailed. Far worse than the gun shortage was the ammunition shortage; even if you were fortunate enough to already own a suitable hunting weapon, finding ammunition for it was often a problem. For a time, privately owned and sold firearms and ammunition brought fantastic prices.

When the war ended, the big firearms manufacturers, like Remington, Winchester, Marlin, Savage, Browning, Ithaca, High Standard and Mossberg, resumed full-scale civilian products production, and many new models were announced to supplement long-time public favorites.

Remington Arms Company's firearms plant at Ilion, New York, recently produced its 10 millionth sporting gun — a premier grade Model 58 autoloading shotgun, appropriately gold inlaid and delicately

engraved—and Winchester long ago passed the two million mark in the production of its perennially popular Model 94 lever-action deer rifle. To the total firearms output of these two rivals must be added the combined firearms production of all the other gun manufacturers.

Yet, surprisingly, total sporting arms production since 1945 has never caught up with consumer demand, and among several leading brands and particular models sizeable shortages still exist. Why? What happens to all the guns that reach consumers?

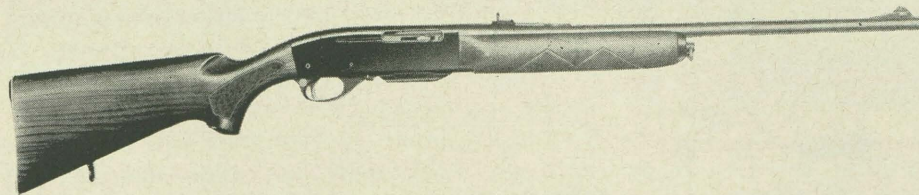
First of all, there are more hunters and target shooters afield than ever before; each newcomer to the shooting game needs a suitable gun. Second, some of these new shooters are going in for many phases of shooting activity—bird hunting, deer hunting, competitive rifle and pistol shooting, trap and Skeet — all of which usually require special firearms models. Finally, many of the old-timers, like the editor of MUZZLE FLASHES, who already own several guns, are willing to forego smoking in favor of a new gun each year. In the aggregate, it's a scramble of buyers for the available new model guns and high-serial numbered old-favorites. To paraphrase the colorful words of Confederate General Nathan Bedford Forrest, the shooter who "gits thar fustest, gits the mostest!"

Among the new gun models for which FLORIDA WILDLIFE'S gun loving readers will face consumer competition in some localities this hunting season are the new Remington listings in .244 and .280 calibers in the Model 740 "Woodsmaster" autoloading rifle, 20 and 16 ga. sizes in the gas-operated Model 58 "Speedmaster" autoloading .22 caliber, tubular magazine repeating rifle and the featherweight version of Winchester's Model 50 self-loading shotgun, and numerous useful firearms accessories.

Because the Editor of MUZZLE FLASHES has not as yet field tested the new Winchester Model 50 shotgun in featherweight form, which should be ideal for the active upland game hunter, only the Remington offerings will be reviewed here.

Available first in .30-06 caliber and then in companion .308 caliber, the Remington Model 740 big game rifle enjoyed a high peak of popularity among Florida hunters last season. However, many hunters expressed a desire to have the rifle model in less powerful calibers, especially the .244 caliber and in a caliber between the .244 and the .30-06. For them, Remington now makes the Model 740 in the double-duty varmint-big game .244 and the harder hitting .280 calibers.

Both calibers, whether used on varmints at long range or deer at average, have extreme accuracy and deliver the "punch" and shocking power needed to kill surely and effectively. The .244's 75 grain Pointed Soft Point bullet has 3,500 ft. per second of muzzle velocity and 2,040 ft. pounds of muzzle energy. At 500 yards, the little bullet still has a speedy step and strikes with a walloping one-quarter ft. ton of energy. It is an excellent cartridge loading for the varmint and turkey hunter. The heavier 90 grain bullet, as made for the .244 caliber cartridge, travels a bit slower at gun muzzle—3,200 ft. per second—but the heavier bullet penetrates deeper and produces better killing power on larger Florida game species, like the whitetail deer. Over



First made in only .30-06 and .308 calibers, the soft-recoil Remington Model 740 big game rifle is now available in smaller, ultra-fast combination big game and varmint hunting calibers .244 and .280.

a 100 yards of travel, in which range most Florida game is killed, both bullet weights give a desirably flat, mid-range trajectory of only one-half an inch rise.

The more powerful .280 caliber is so new that many interested shooters are going to find it difficult to locate the cartridge loadings except by a determined search of all local hardware and sporting goods stores; at least, this editor has not been able to find .280 ammunition on shelves of Florida stores; perhaps stocks will be added to other carried cartridge listings by the time this text appears.

Cartridge loadings in the new .280 caliber will be packaged in the shooter's choice of three bullet weights—the 125 grain Pointed Soft Point Core-Lokt, the 150 grain Pointed Soft Point Core-Lokt and the 165 grain Soft Point Core-Lokt, giving the hunter a proper range of effective ammunition for both small and big game hunting. The 125 grain bullet gives 3,140 ft. per second muzzle velocity and is still moving at 2,870 ft. per second when it crosses the 100 yard marker and is traveling at 2,600 ft. per second at the 200 yard point of bullet flight; energy is 2,740 ft. pounds at muzzle; 2,290 and 1,880 ft. pounds at 100 and 200 yards, respectively. That's moving fast and hitting hard!

A bit slower, but still plenty fast and flat-shooting, are the 150 and 165 grain bullet loadings in .280 caliber. The first hits a 2,810 ft. per second muzzle velocity speed, and packs 2,220 foot pounds of striking energy at 100 yards, 1,850 ft. pounds of remaining energy at 200 yards. The 165 grain bullet, heaviest currently fitted to factory packaged .280 caliber ammunition, has a muzzle velocity of 2,770 ft. per second and hitting energy of 2,220 ft. pounds at 100 yards and 1,740 ft. pounds (still plenty of killing power) at 200 yards.

These ballistics figures are given for the simple reason that Florida deer hunters have repeatedly asked for data on flat-shooting, high velocity big game cartridge loadings that will do a humane job of killing game



Both sides of the gas-operated Remington Model 58 autoloading shotgun are attractively engraved. It's machine engraving (to enable the standard models to sell at popular prices), but neatly executed.

while being pleasant to shoot in respect to recoil. The .244 and .280 calibers are especially suited to those who tend to flinch from the noise and recoil of larger calibers, like the .308 and the .30-06. True, they are not the brush buckers represented by the .35 Remington caliber, as embodied in Remington's Model 760 slide-action big game rifle, but for most Florida hunting the .244 and .280 calibers will do just about all that can be expected of big game rifle calibers, plus their versatility, with lighter bullet loads, for varmint shooting.

The Model 58 Remington "Sportsman", 3-shot autoloading shotgun, reviewed in MUZZLE FLASHES last Fall, was a favorite with Florida bird hunters and waterfowlers last hunting season. The new 16 and 20 ga. versions are the same basic design and operate the same as the original 12 ga. model, but, to the delight of upland bird hunters, are lighter in weight and faster pointing than the first marketed Model 58's. Clay pigeon shooters and feminine hunters will surely find the fast and smooth 20 ga. Model 58 to their liking. What with the recoil of even the heavy 12 ga. being noticeably softened by Remington's cushioned-action mechanism, the light 20 ga. gives only a gentle push against the shooter's shoulder.

Also new in the Remington line this season is the Model 552 "Speedmaster" autoloading .22 caliber rifle that handles short, long and long rifle rim fire cartridges interchangeably and without adjustment. Built

to look and handle like the big game killers, Remington's 740 and 760 models, the Model 552 .22 caliber listing enables the small and big game hunter to assemble a complete "matched" set of autoloading firearms.

The old Remington Model 24 and 241 autoloading .22 caliber rifles were good little guns in their day, but needed certain improvements, especially larger, more hand-filling fore-ends, selective single loading or auto-operation with combined positive empty shell ejection and receivers drilled or grooved for telescopic sight mountings. The new Model 552 has all these long desired features, plus an action that tends to clean itself of powder residue and a detachable deflector that routes ejected, empty cartridge cases away from the shooter.

The takedown of the new Remington .22 autoloader involves only the removal of two pins and a single screw, for major components separation, but complete disassembly should be left to a competent gunsmith familiar with gun mechanisms and locations of related parts. However, such described disassembly of the Model 552 should be extremely rare for the average shooter.

Take a look at the new Remington models the next time you are in a sporting goods store stocking firearms, and let this Gun Editor know what you think of them.

It's a sure thing that owners of the new Remingtons are going to have some happy hunting this season and for many seasons to come. ●

WARM-UP FOR WATERFOWL

(Continued from page 13)

season, I especially recommend North Carolina's Wilmington-Southport marshland areas, where full bags of fat hens are almost a certainty. Although a Floridian by birth, I lived in and hunted that section of the South for many years. There, marsh hens have been plentiful as far back as the days of unrestricted market hunting; there, they are still abundant and ready to take wing ahead of an approaching gunner! If you do travel Carolina-way, go early of season, for as the days grow colder many of the Carolina-hatched rails migrate southward. An ideal plan would be to hunt them the first days of the season in southeastern North Carolina and then finish the season's shooting in Florida.

Marsh hen hunting is simple compared to downing high or fast-flying ducks and geese, but the earlier opening of the marsh hen season in most Atlantic coastal states makes the sport an ideal early Fall warm-up for waterfowl. ●

FLORIDA BIRDLIFE

(Continued from page 33)

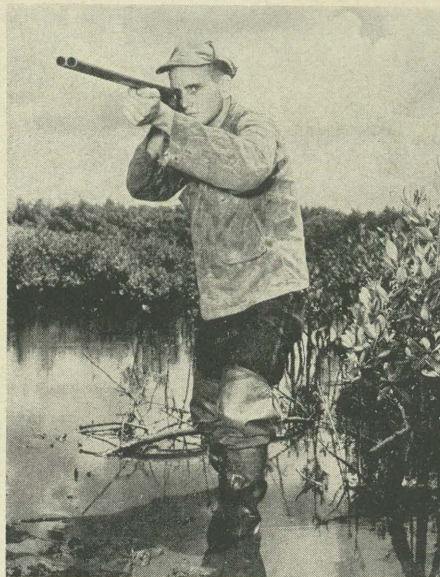
The swallow-tails seem to prefer company of others of their kind for they are frequently seen in small groups, feeding over river bottoms, swamps and inland marshes.

Larger insects, taken on the wing, form the mainstay of the diet, although small frogs, snakes, and lizards are among the other foods frequently captured.

Known as a breeding species throughout most of the State, this kite is less common in the northern portion than in the central and southern sections.

Everglades Kite, *Rostrhamus sociabilis*.

The male Everglade kite is dark blue-gray in color with red at the base of the beak and red legs. The female is dark brown above with much white about the head, yellow legs, and a heavily streaked white breast. Both sexes have a broad white band at the base of the tail and

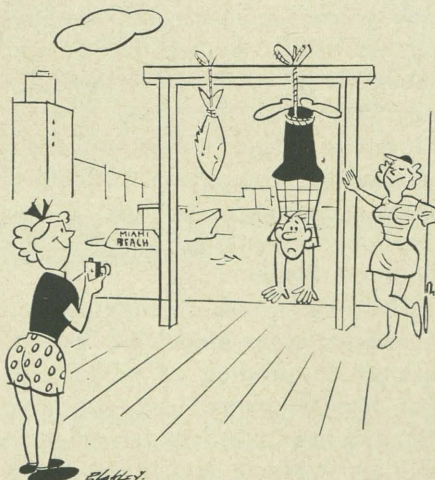


A third method of hunting marsh hens is to still-hunt during a low tide stage, flushing and shooting those birds that emerge from concealing vegetation on the shore edges. When you hear the hens calling, but cannot locate them, try bouncing marbles, from a slingshot, through the growth to flush them from hiding.

a long, thin, strongly-hooked beak.

Today, in the Lake Okeechobee area exists a single colony composed of fewer than 50 nesting pairs, the remnant of a species that, up until thirty years ago could be found on almost every fresh water marsh in the state.

The plight of this kite is directly related to the highly specialized diet of the species. The Everglade kite feeds solely upon the large freshwater snail, *Pomacea paludosa*, a form greatly reduced by drainage and the resultant intrusion of salt water into formerly fresh water marsh lands. ●



BLUE BATTLER

(Continued from page 21)

Nearby, perhaps, there is a savage boiling and splash as a bass takes a frog from the edge of a lily pad, but it's the bluegills we're after tonight. Now is when we find the restfulness we seek in fishing—not the thrill of battling a giant largemouth, but rather the inner satisfaction that comes from expert, but unhurried, angling.

Where to catch bluegills in Florida—in particular? Fishermen from three states come to work Dead Lakes, where the moss-festooned cypress stumps offer ideal conditions and perhaps the most famed bluegill water in the state. But Lake Talquin is not to be overlooked, nor such fine rivers as the Withlacoochee, the Escambia, and the Steinhatchee.

Come to think of it, there isn't a spot in Florida where you can't catch bluegills. And if there is such a place we'd like to know about it. So would a lot of other bluegill enthusiasts. Because we've never yet heard of it! ●

FISHING

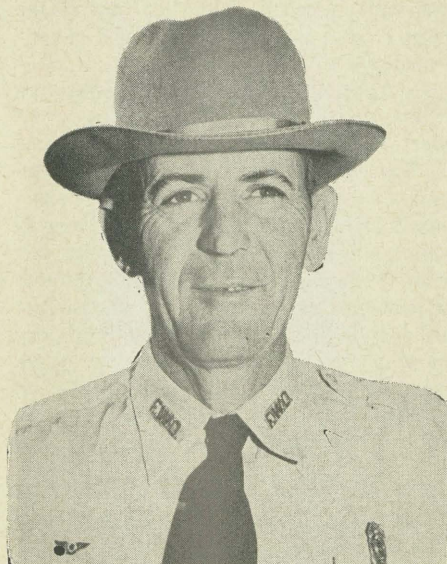
(Continued from page 9)

He had only a scout axe with him. He tried to build a lean-to, but the mosquitoes drove him out. He fled thru the woods and finally found an old, discarded, 55-gal. gas drum. Thinking fast, he crawled inside the drum and up-ended it over him. The mosquitoes, angered at his escape, attacked the drum, driving their stingers thru the metal.

Our hero amused himself by clenching the stingers on the inside of the drum with his scout axe. By morning, the outside of the drum was covered with captive and very angry insects who at last flew off with their jail in a final gesture of defiance.

Flying saucers were reported from various parts of Minnesota for the next several days. ●

MEET YOUR COMMISSION



FRED JACKSON
Northwest Florida

Fred Jackson joined the Game and Fresh Water Fish Commission on April 1, 1944 and has served as a Wildlife Officer for the Jackson County area since that date.

Born and raised in Grand Ridge, his present home, Fred is married to the former Altha King. They have six children, C. B. 25, Tommy 18, Odessa 14, Cleo 11, Hilda 9, Odis 8.

Before taking on the job of Wildlife Officer, Fred worked as a farmer. He is an active member of the Jackson County Sportsmen's Club.

as Wildlife Officer for Franklin County in the Northwest region.

Living in Apalachicola, place of birth, Ollie is married to the former Sally Strickland of Marianna. They have one son, Lloyd, Jr.

Prior to his present appointment, Lloyd worked for the Quinn Fisheries in Apalachicola. During World War II he served as a cook with the U. S. Coast Guard and his culinary arts are known throughout the area, spaghetti and sea food dinners being his specialties.

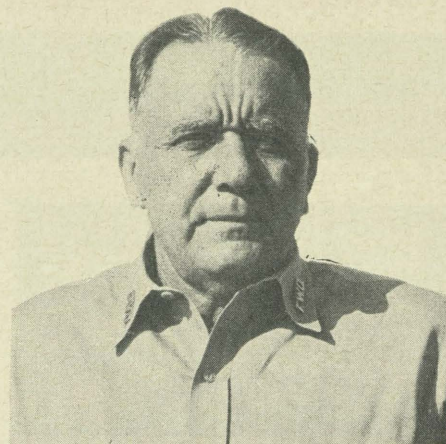
Ollie is a member of the Franklin County Sportsmen's Association and the American Legion.



WAYNE GERRELL WATKINS
Central Florida Region

Wildlife Officer Wayne Watkins has been employed by the Game and Fresh Water Fish Commission since September 3, 1938. He came to the Commission as an experienced officer having worked in the law enforcement field as a Deputy Sheriff, Timber Warden and as a member of the U. S. Border Patrol. A veteran of the Mexican Border action in 1917, he served as a Corporal with the First Punitive Expedition.

Wayne's area of service is Putnam County where he was born and raised. He and his wife, the former Martha Alice Kelley of Branford, make their home in Putnam Hall. They have two daughters, Annette and Alice, and one son, Wayne Gerrell, Jr. A one time professional baseball player, Wayne's present recreational interests are hunting and fishing.

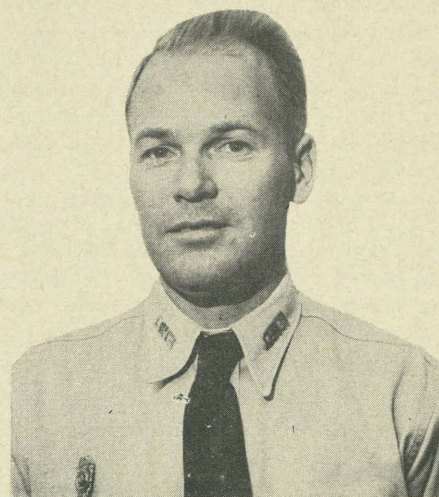


REGINALD GUY GARRETT
Fish Management

On July 1 of this year, Reginald Garrett completed 30 years as an employee of the Game and Fresh Water Fish Commission.

Guy, as he is known by his friends, is superintendent of the Commission's fish hatchery at Winter Haven. He is married to the former Blossie May Feagin of Lakeland and lives at Eagle Lake in Polk County. They have a son, Reginald, age 33 and a daughter, Ernestine, 30.

Guy served with the U. S. Army in the Coast Artillery during World War I and prior to joining the Commission was employed by the Peterson-Farnhart Construction Company.



JIM CARTER
Northwest Florida

Flying Wildlife Officer Jim Carter was employed as a pilot for the Northwest Region on July 17, 1951. A veteran of World War II, Jim served three years with the Air Force as a pilot flying 31 combat missions in the European Theatre.

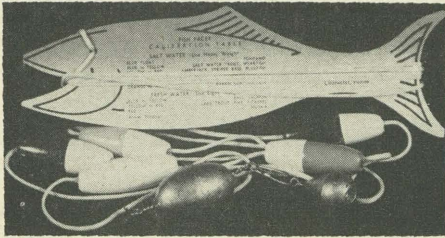
Born in Marion County and now living in Panama City, Jim is married to the former Joan Ann Parks of New Jersey. They have a four year old son, James David and a one year old daughter, Cornelia Jean.



LLOYD OLIVER MONTGOMERY
Northwest Region

Employed by the Game Commission on August 15, 1948, Lloyd Montgomery serves

FLORIDA WILDLIFE FIELD TESTS AND TELLS



TROLLING is one of the most productive forms of fishing, especially in salt water, but to produce catches it must be done right.

Lures must run at both an attractive speed and correct depth to successfully tease fish into striking—and each species seemingly has its preferences. Barracuda and dolphin, for example, generally prefer a faster trolled bait than fresh water bass and salt water pompano. Similarly, lake trout, pike, amberjack, blue fish, snook, pickerel and mackerel seem to prefer trolled lures moving along somewhere between the two extremes of speed. Trolling baits at proper speeds and keeping them at correct depths has long been a problem, and serious trollers have experimented with all sorts of ideas in an attempt to develop aids to achieving desirable trolling speeds and lure working depths, without losing valuable fishing time once baits have been put over-side.

Now comes a device that is so simple and effective as a trolling speed guide that FWFT&T is chagrined not to have first conceived the idea long ago . . .

Named the Fish-Pacer, it utilizes the principle of the performance of a weighted line moving against the resistance of water. The faster the speed of the boat, the greater the resistance of the water against the trolled line and the higher it will ride in the water as speed is increased.

The Fish-Pacer represents a 16-foot length of 100-lb. test braided nylon line, with two interchangeable end weights and five different colored floats permanently located at different positions along the line's length. The larger end weight furnished for use in salt water, the smaller to be substituted when fresh water trolling.

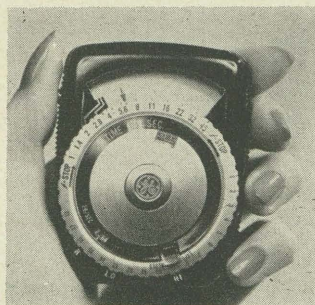
To use the Fish-Pacer, fasten the looped end to the stern of your boat and then gradually release the line and attached floats into the water, weighted end first. If your boat is at a standstill, the weighted line will hang straight down in deep water.

Increase the angle of the dangle by slowly opening the motor's throttle until the dangling line begins to trail behind your boat at a rising angle. As motor speed is

increased, the first colored float to be seen will be the blue one—generally the best trolling speed for pompano. Each successively appearing colored float indicates an increased speed most productive for certain species of fish. You merely consult a chart printed on the fish silhouette winder the manufacturer provides and regulate your motor's speed until the proper colored float angles into sight, just breaking the water's surface. Each colored float, being permanently fastened at a line position determined by many trial runs by expert fishermen, has its own trolling speed value and potential catch classification corresponding to the printed chart. Between float values are also given—boat speed operation between blue and yellow floats, for example, being approximately correct for fresh water bass, used with the provided light trolling weight.

Actual use of the Fish-Pacer is far more simple than FWFT&T's attempt to explain its operation. You're sure to like it if you fish by the trolling method.

Product of Marine Division of Aerosonic Instrument Corporation, Clearwater, Florida. Price \$2.95, in sporting goods stores or direct.



SINCE announcement of its availability from assembly lines of the General Electric Company, the firm that rates progress as its most important product, considerable reader interest has been shown in the new "Guardian" photographic exposure meter. FWFT&T has only recently completed exhaustive field tests on the "Guardian" and is now able to give non-commercial, semi-technical report.

Comparison tests under a variety of Florida lighting conditions showed that the "Guardian" has twice the sensitivity of its predecessor, the GE PR-1 meter. A provided light-multiplier attachment in the new model increases the sensitivity of the meter approximately 64 times for incident-light readings and 4 times for reflected-light readings. Known as the Dynacell, the light-boosting attachment automatically

takes care of border-line decisions about unusual or puzzling light conditions, and measures both incident and reflected light with equal ease. It folds flat against the meter's case and is automatically disconnected when not in use.

An especially notable and helpful feature of the new GE "Guardian" meter is the direct reading of exposure values, f/stops or Polaroid numbers. Further, obtained readings are good for any pre-set shutter speeds and corresponding exposure equivalents—a feature of definite value to still and movie camera users who find it difficult to remember and apply f/stop and shutter speed values when they decide to change an originally selected exposure setting to one faster or slower. This exposure step on the "Guardian" is automatic and covers all of the present ASA film speeds, shutter speeds from 120 seconds to 1/1000 second and f/stops from f/1 to f/45. Shutter speeds are shown one at a time through a window. Film speed and frames per second for movies are shown in other windows. The "Guardian" also has a provision for directly reading the Exposure Values (LVS) used on some European cameras.

To use the "Guardian" exposure meter, one presses a button to release the unit's pointer, aims the meter and releases the button, which automatically locks until the photographer is through with the reading. The operation is similar to that of the original PR-1 meter, but the resulting light reading is automatically computed in respect to f/stop and shutter speed wherever the needle indicator comes to rest.

Changes in exposure index are made quickly and easily on the "Guardian" by a center lock which secures the index number from possible accidental shifting.

Like the PR-1, the new meter (officially known as the PR-2) utilizes a special incident-light attachment, usable with and without the light-boosting Dynacell.

Some professionals—masters of individual light-reading techniques and reluctant to make transition to a new product—have declared to FWFT&T that they give the nod of preference to the original PR-1 model. But for the average amateur who likes to experiment with different film speeds and who does not make the same type of pictures under almost identical light conditions, the new "Guardian" is decidedly preferable because of its almost automatic operation and comparison of existing technical factors.

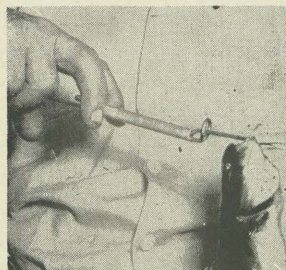
Price for the "Guardian" with leather carrying case is \$34.50. (The leather case, incidentally, is an improvement over the

PR-1's zipper-closing case; the new style, snap fastener, hinged-lid case makes the "Guardian" instantly accessible for use.)

The Dynacell attachment is \$7.95 extra and the incident-light attachment is \$1.50 extra.

The new "Guardian", like the PR-1, is warranted against defects in material or workmanship for the lifetime of the instrument.

Available from most local camera shops and listed by many mail order houses.



WHETHER you are a steady fisherman or only an occasional weekend angler, sooner

or later you will be faced with the problem of removing a deeply embedded hook from tough mouth tissues of a catch.

Such hook removals frequently are difficult and time-consuming jobs, especially if a fish has swallowed the hook. Treble hooks on plugs can be downright discouraging!

A pair of long-nosed pliers are of definite value, but are not infallible; many times an angler has to cut off a hook and throw it away with an unwanted trash fish. Even worse is to get an only—and producing—plug so fouled up that its recovery is possible only through extensive and bloody surgery on the angler's catch.

Now comes a fishing gadget that releases even the most deeply set hooks in a few seconds. Holding your leader and hook under tension, you can use the device without even touching your catch, if you wish.

The gadget is called the De-Hooker, product of Chartiers Manufacturing Company, 10 Alice Street, McKees Rocks, Pennsylvania, and represented in Florida by Lyman Rogers, Southern sales agent for Gladding line, Phantom rods, Palco canteens

and other national brand products.

The secret of the De-Hooker is application of pulling force at the exact point of need, and its operation is positive regardless of the embedded hook problem faced—whether single or treble. The device is simply perfect for removing hard-hooked flies and plugs.

To use the De-Hooker, slide the gadget down the tautly pulled leader or line to the shank of the hook, until its button-hook point encircles the curve of the hook. Directly applied hand squeeze pressure to the handle of the De-Hooker pulls the hook curve up through an opening in the lower, business end of the device, to release the barb and point. The hook removal can be done quicker than one can tell how to do it!

The De-Hooker is simple in construction, without any small parts that can work loose and be lost. Just wipe off your De-Hooker with an oily rag occasionally and it will serve you for many years.

Price is \$1.25, in tackle stores or on direct order.

BOWFINS ARE SCRAPPERS

(Continued from page 15)

You are likely to encounter a mudfish while using live bait, especially if the bait is dead or nearly so. The largest mudfish I ever landed—a 7-pounder—was hooked while I was bass fishing with chubs in the canal.

I was retrieving my bait preparatory to putting on a live chub when WHAM! A bowfin hit in the middle of the canal. He was a battler. He dug for the bottom and the drag sang as he ran out line. I finally checked him, and he started towards the bank where I was standing. I frantically reeled in slack. Then he turned and darted in another direction.

He sulked and then he lunged deep again. I could tell he was tiring but so was I. He headed towards some grass at the edge of the canal and I thought he was gone.

I expected him to snap my spinning line on the grass or one of the rocks he was headed towards. But I checked him and gradually brought him back. My fishing partner finally netted him.

Muds like other fish, have definite periods when they are in an eating or angry mood and then they will hit live baits or artificials with abandon.

Bill and I observed this graphically one Saturday while boat fishing the canal. We started out trolling deep for bass but all we got was a 2-pound mudfish that practically swallowed Bill's plug.

In a wide spot in the canal, we saw fish rolling. I lobbed a plastic eel with a weedless hook into the area and hooked onto a four pounder. He gave me a real tussle on my spinning rig before Bill netted him.

This was Bill's day to hook mudfish not that we particularly wanted them, but they were in a hitting mood. Bill did not mind too much for he was trying out a new spinning outfit and the bowfins gave him a real workout. He did manage to land a one and a half pound large-mouth in between getting tangled with three other mudfish, the largest of which weighed four pounds.

And as suddenly as we had run into the biting mudfish, as suddenly we ran out. They just quit hitting—live bait, dead bait or artificials. They were through as though they had punched out their time clocks and gone home from work.

You will have no trouble in identifying mudfish. They are muddy-green in color and their shiny, coarse scales give an iridescent appearance.

Their outstanding characteristic is the elongated dorsal fin which extends two-thirds the length of the body. The tail is blunt and rounded, and the eyes small and wicked looking. Their forehead is sloping and they have a wide mouth and sharp teeth. If they clamp onto you, you will know you have been bitten. It is a good idea to use pliers in handling them.

You will find mudfish striking best when you can see them rolling on the surface, an indication that they are feeding. There is nothing that swims they will not tackle if it is near their size. When conditions are right, the best thing to do is hitch on an underwater lure, and fish it 2 to 3 feet beneath the surface in the action area. You will probably not hook the fish that rolls but you have a good chance of tangling with his partner. Don't say you weren't warned to expect a fight.

It will be an interesting scrap if you use light tackle. On a spinning rod with a light line you may have about all you can handle. Don't be surprised if you lose as many as you land. A hooked mudfish will give you plenty of back-talk so be prepared. ●

BOOK SHELF

(Continued from page 35)

AMERICA'S NATURAL RESOURCES, edited by Charles H. Callison, National Wildlife Federation. 211 pages. Published by The Ronald Press Company, 15 East 26th Street, New York 10, N. Y. Price \$3.75.

More and more Americans are developing an appreciation for, and a conscience about, the natural resources of their continent. Yet the vast majority of responsible citizens, however well meaning they may be, lack the essential background for an informed approach to the problem.

In the words of some of the nation's foremost experts, this book provides a clear, intelligible summary of the facts about America's natural resources and their conservation. It brings together the basic information about soil, water, grasslands, forests, and each of the major renewable resources, in a form that will be immediately useful to the intelligent citizen with little knowledge of the scientific details. Each topic is covered in a separate chapter by a leading authority, who sketches the historical background, points out the importance of the resource to human life, shows the dangers that threaten it, and explains sound methods by which it may be preserved and used most profitably in the long run. Introductory and final chapters pro-

vide a national and world perspective.

This is a book that will be valuable to readers in many situations—to the voter, the farmer, the teacher, the legislator, the leader of public opinion. It is essential reading for all who have glimpsed the dangers threatening natural resources and wish to take intelligent action in their defense on the community, state, or national level.

This book is sponsored by the National Resources Council of America, a nonprofit, nonpolitical organization of forty national and regional associations interested in conservation. The contributors were selected not only for their high professional standing in their fields of specialization but also for their known objectivity. ●



"It isn't so much what my wife will say, it's the number of times she'll say it."

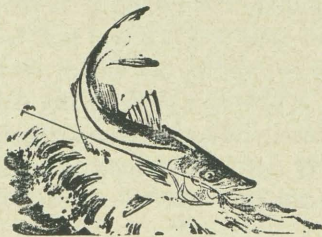
OPEN DOOR FOR OUTDOORSMEN

(Continued from page 19)

of fish. A program of constructing fishing ponds at suitable sites throughout Eglin Air Force Base was started to provide managed fishing waters for the angler. By the end of 1956 there were fifteen such ponds that covered seventy-seven acres, or an average of 5.13 acres per pond. These ponds are under constant surveillance of fisheries technicians of the U. S. Fish and Wildlife Service and are renovated, drained, fertilized and restocked as the need is indicated. By using this system some of the ponds will offer excellent fishing at any time the fisherman wishes to try his luck. Many more fishing ponds are needed to meet the present demand for freshwater fishing. Under the present program, three ponds are being constructed each year.

It has been found that very little fish management can be satisfactorily accomplished in the streams of the area. Some of the streams have been stocked with smallmouth bass, brown trout, and rainbow trout. The success of these stocking has not been definitely ascertained. It has been determined that these species are not reproducing in the local streams, and if they are to provide fishing, it will require periodic restocking. Access roads to the streams have been provided for anglers, but as the fish pond program progresses these roads get less use.

So successful has been the progress of Eglin's wildlife management program it has attracted national attention. Those faced with the problem of managing the game and fish on other public lands are examining in detail the operation of the Air Force's Eglin project. In the meantime, northwest Florida hunters and fishermen are reaping a bountiful harvest as a result of principles of modern wildlife management. ●



IF YOU FISH SALT WATER—

Salt Water Sportsman

Is The Magazine For You!

**The only national monthly devoted
100% to marine sport fishing.**

Written by fishermen for fishermen, it brings you the latest on where to, when to and how to catch more — and bigger — marine game fish. Details on tackle, methods, rigs, etc. A full year's subscription costs \$4, or 35c a copy on the stands, but you may receive the

Next Four Issues for Only \$1!

Just write your name and address on a slip of paper, send it with \$1 to the address below, and you will receive lively, informative **Salt Water Sportsman** for the next four months as soon as the issues come off the press. Thanks, and good fishing!

SALT WATER SPORTSMAN

229 West 14th St., Hialeah, Fla.

FLORIDA, WILDLIFE'S SCRAPBOOK

THE CLAPPER RAIL
(*Rallus longirostris*) IS
FOUND IN SALT WATER
MARSHES ALL OVER
FLORIDA AND IN THE
MANGROVES OF SOUTH
FLORIDA - IT AVERAGES
15 INCHES LONG AND
WEIGHS FROM $\frac{1}{2}$ TO
 $\frac{3}{4}$ OF A POUND

THE RAILS ARE
SECRETIVE BIRDS - MORE
OFTEN HEARD THAN SEEN -
NESTS ARE BUILT OF
GRASSES IN A CLUMP
OF DRY VEGETATION IN
THE MARSH - EGGS
NUMBER FROM 9 TO 12

SEVERAL KINDS OF RAILS
OR "MARSH HENS" AS THEY
ARE COMMONLY CALLED - ARE
NATIVE TO FLORIDA - THE TWO
MOST IMPORTANT SPECIES TO
THE SPORTSMAN ARE THE
CLAPPER RAIL AND THE
SORA RAIL

RAILS EAT FIDDLERS
AND OTHER CRABS AND
CRUSTACEA, INSECTS,
WORMS, MUSSELS AND
SNAILS

GOOD TO EAT -
MARSH HENS ARE
HUNTED BY BOAT
DURING HIGH TIDE
IN NORTHEAST
FLORIDA - HUNTERS
"WALK-EM-UP" DURING
LOW TIDE IN GULF
COAST MARSHES

IMMATURE

DOWNY BLACK CHICKS
RUN ABOUT SOON AFTER
HATCHING

Wallace
Thornes

ADULT HAS
YELLOW BILL -
BLACK FACE
AND THROAT

IMMATURE
SORA HAS LIGHT
THROAT - BROWN
HEAD - GREENISH
BILL

**THE
SORA RAIL**
(*Porzana carolina*)
INHABITS FLORIDA'S
FRESH AND SALT MARSHES
DURING THE FALL AND
WINTER MONTHS - IT
AVERAGES ABOUT 9
INCHES LONG AND
WEIGHS 3 TO 4 OUNCES
- WEAK FLYERS - RAILS'
LEGS DANGLE
LIMPLY WHEN
IT FLIES

RAILS



SUBSCRIBE NOW TO

Florida Wildlife

The Florida Magazine for ALL Sportsmen

12 Big Issues of
Hunting and Fishing
for only \$2.00

TWO YEARS, 24 ISSUES, \$3.75

THREE YEARS, 36 ISSUES, \$5.25



FLORIDA WILDLIFE
Tallahassee, Florida

Enter or extend my subscription for _____ year (s)
for Florida WILDLIFE.

☐ Check; ☐ Cash; ☐ Money Order herewith.

Mailing Address:

Name _____

Street No. _____

City _____ State _____

Signed _____